AUTHOR INDEX VOLUME 184

A

Abbas, A.K. *See* Lederer, Perez, DesRoches, Kim, Abbas, and Lichtman.
Abe, R. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Abo, T. *See* Watanabe, Miyaji, Seki, and Abo.
Abrams, J.S. *See* Klimpel, Langley, Wypych, Abrams, Chopra, and Niesel.
—*See* Roth, Corry, Locksley, Abrams, Litton, and Fisher.
Accame, L. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Acuto, O. *See* Tuosto, Michel, and Acuto.
Adam, D. *See* Machleidt, Krämer, Adam, Neumann, Schütze, Wiegmann, and Krönke.
Aderem, A. *See* Allen and Aderem.
Åhlin, A. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Aiello, F.B. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Aiuti, A. *See* Bleul, Fuhlbrigge, Casasnovas, Aiuti, and Springer.
Alavi, M. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.
Albelda, S.M. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.
Alber, G. *See* Cella, Scheidegger, Palmer-Lehmann, Lane, Lanzavecchia, and Alber.
Alberola-Ila, J., Hogquist, K.A., Swan, K.A., Bevan, M.J., and Perlmutter, R.M. Positive and negative selection invoke distinct signaling pathways. 9.
Albert, R.K. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Alderson, A. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Alexander-Miller, M.A., Leggatt, G.R., Sarin, A., and Berzofsky, J.A. Role of antigen, CD8, and cytotoxic T lymphocyte (CTL) avidity in high dose antigen induction of apoptosis of effector CTL. 485.
Alexopoulou, L. *See* Pasparakis, Alexopoulou, Episkopou, and Kollias.
Allen, H. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Allen, L.-A.H., and Aderem, A. Molecular definition of distinct cytoskeletal structures involved in complement- and Fc receptor–mediated phagocytosis in macrophages. 627.
Allen, P.M. *See* Kersh and Allen.
— *See* Sloan-Lancaster, Steinberg, and Allen.
Allison, J. *See* Kurts, Heath, Carbone, Allison, Miller, and Kosaka.
Alnemri, E. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Anand, S. *See* Batista, Anand, Presani, Efremov, and Burrone.
Anderson, G.D. *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Anderson, L.R. *See* Szczepanik, Anderson, Ushio, Ptak, Owen, Hayday, and Askenase.
Anderson, S.K. *See* Mason, Anderson, Yokoyama, Smith, Winkler-Pickett, and Ortaldo.
Andres, G. *See* Biancone, Bowen, Lim, Aruffo, Andres, and Stamenkovic.
Annels, N.E. *See* Steven, Leese, Annels, Lee, and Rickinson.
Anstey, N.M., Weinberg, J.B., Hassanali, M.Y., Mwaikambo, E.D., Manyenga, D., Misukonis, M.A., Arnelle, D.R., Hollis, D., McDonald, M.I., and Granger, D.L. Nitric oxide in Tanzanian children with malaria: inverse relationship between malaria severity and nitric oxide production/nitric oxide synthase type 2 expression. 557.
Antel, J.P. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.
Appella, E. *See* Katz, Stebbins, Appella, and Sant.
— *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.
— *See* Wang, Appella, Kawakami, Kang, and Rosenberg.
Arenberg, D.A., Kunkel, S.L., Polverini, P.J., Morris, S.B., Burdick, M.D., Glass, M.C., Taub, D.T., Iannettoni, M.D., Whyte, R.I., and Strieter, R.M. Interferon-γ-inducible protein 10 (IP-10) is an angiostatic factor that inhibits human non-small cell lung cancer (NSCLC) tumorigenesis and spontaneous metastases. 981.
Argaet, V.P. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.
Arizpe, H. *See* Catalina, Carroll, Arizpe, Takashima, Estess, and Siegelman.
Arnelle, D.R. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
Arnet, B. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.
Arrecubieta, C., López, R., and García, E. Type 3–specific synthase of *Streptococcus pneumoniae* (Cap3B) directs type 3 polysaccharide biosynthesis in *Escherichia coli* and in pneumococcal strains of different serotypes. 449.
Aruffo, A. *See* Biancone, Bowen, Lim, Aruffo, Andres, and Stamenkovic.
— *See* Guo, Wu, Shinde, Sy, Aruffo, and Liu.
— *See* Liles, Kiener, Ledbetter, Aruffo, and Klebanoff.
Asano, M., Toda, M., Sakaguchi, N., and Sakaguchi, S. Autoimmune disease as a consequence of developmental abnormality of a T cell subpopulation. 387.
Ashikari, S. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Askenase, P.W. *See* Szczepanik, Anderson, Ushio, Ptak, Owen, Hayday, and Askenase.
Austen, K.F. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Sali, and Gurish.
Avila, E.M. *See* Hara, Toyoda, Yaar, Bhawan, Avila, Penner, and Gilchrest.
Azzoni, L. *See* Bennett, Zatsepina, Zamai, Azzoni, Mikheeva, and Perussia.

B

Bacon, K.B., Szabo, M.C., Yssel, H., Bolen, J.B., and Schall, T.J. RANTES induces tyrosine kinase activity of stably complexed p125^{FAK} and ZAP-70 in human T cells. 873.
— *See* Hwang, Singer, Giblin, Yednock, Bacon, Simon, and Rosen.
— *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Baggiolini, M. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
— *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.
— *See* Loetscher, Seitz, Baggiolini, and Moser.
Bailish, E. *See* Broxmeyer, Cooper, Cacalano, Hague, Bailish, and Moore.
Baisch, J. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.
Bakhiet, M. *See* Zhang, Xiao, Bakhiet, van der Meide, Wigzell, Link, and Olsson.
Bakker, C.Y. *See* Walunas, Bakker, and Bluestone.
Balasingam, V. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.
Banchereau, J. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
— *See* Liu and Banchereau.

Banerji, J. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Barber, D.L. *See* Boussiotis, Barber, Lee, Gribben, Freeman, and Nadler.
Barber, L.D., Percival, L., Valiante, N.M., Chen, L., Lee, C., Gumperz, J.E., Phillips, J.H., Lanier, L.L., Bigge, J.C., Parekh, R.B., and Parham, P. The inter-locus recombinant HLA-B*4601 has high selectivity in peptide binding and functions characteristic of HLA-C. 735.
Barbieri, S. *See* Denkers, Scharton-Kersten, Barbieri, Caspar, and Sher.
Barker, P.A. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.
Barrett, T.A. *See* Guehler, Bluestone, and Barrett.
Batista, F.D., Anand, S., Presani, G., Efremov, D.G., and Burrone, O.R. The two membrane isoforms of human IgE assemble into functionally distinct B cell antigen receptors. 2197.
Bax, A. *See* Plaksin, Chacko, McPhie, Bax, Padlan, and Margulies.
Beaudet, A.L. *See* Mizgerd, Meek, Kutkoski, Bullard, Beaudet, and Doerschuk.
Beeson, C., Rabinowitz, J., Tate, K., Gütgemann, I., Chien, Y.-h., Jones, P.P., Davis, M.M., and McConnell, H.M. Early biochemical signals arise from low affinity TCR–ligand reactions at the cell–cell interface. 777.
Beitz, L.O. *See* Ota, Beitz, Scharenberg, Donovan, Kinet, and Samelson.
Bell, J.I. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
Bellavia, D. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Bendelac, A., Hunziker, R.D., and Lantz, O. Increased interleukin 4 and immunoglobulin E production in transgenic mice overexpressing NK1 T cells. 1285.
Bennett, I.M., Zatsepina, O., Zamai, L., Azzoni, L., Mikheeva, T., and Perussia, B. Definition of a natural killer NKR-P1A$^+$/CD56$^-$/CD16$^-$ functionally immature human NK cell subset that differentiates in vitro in the presence of interleukin 12. 1845.
Bennett, J.E. *See* Salas, Bennett, Kwon-Chung, Perfect, and Williamson.
Berenstein, E.H. *See* Zhang, Berenstein, Evans, and Siraganian.
Berg, D.J. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.
Bergemann, A.D. *See* Lorenz, Bergemann, Steinberg, Flanagan, Li, Galli, and Neel.
Berns, A. *See* Jacobs, Iacomini, van de Ven, Tonegawa, and Berns.
Berthelot, J.-M. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Berzofsky, J.A. *See* Alexander-Miller, Leggatt, Sarin, and Berzofsky.
Bettencourt, B. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Bevan, M.J. *See* Alberola-Ila, Hogquist, Swan, Bevan, and Perlmutter.
Bhan, A.K. *See* Mizoguchi, Mizoguchi, Chiba, and Bhan.
Bhardwaj, N. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Bhawan, J. *See* Hara, Toyoda, Yaar, Bhawan, Avila, Penner, and Gilchrest.
Biancone, L., Bowen, M.A., Lim, A., Aruffo, A., Andres, G., and Stamenkovic, I. Identification of a novel inducible cell-surface ligand of CD5 on activated lymphocytes. 811.
Biassoni, R. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Bigge, J.C. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
Bigler, M. *See* Groux, Bigler, de Vries, and Roncarolo.
Biro, J. *See* Falk, Biro, Kohler, and Eichmann.
Bischoff, R. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.
Björck, L. *See* Herwald, Collin, Müller-Esterl, and Björck.
Blake, J., Johnston, J.V., Hellström, K.E., Marquardt, H., and Chen, L. Use of combinatorial peptide libraries to construct functional mimics of tumor epitopes recognized by MHC class I–restricted cytolytic T lymphocytes. 121.
Blaser, K. *See* Crameri, Faith, Hemmann, Jaussi, Ismail, Menz, and Blaser.
— *See* Roth, Nauck, Yousefi, Tamm, Blaser, Perruchoud, and Simon.
Bleul, C.C., Fuhlbrigge, R.C., Casasnovas, J.M., Aiuti, A., and Springer, T.A. A highly efficacious lymphocyte chemoattractant, stromal cell-derived factor 1 (SDF-1). 1101.
Bluestone, J.A. *See* Guehler, Bluestone, and Barrett.
— *See* Karandikar, Vanderlugt, Walunas, Miller, and Bluestone.
— *See* Walunas, Bakker, and Bluestone.
Boczkowski, D., Nair, S.K., Snyder, D., and Gilboa, E. Dendritic cells pulsed with RNA are potent antigen-presenting cells in vitro and in vivo. 465.
Boesteanu, A. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
Bohle, B. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
Bolen, J.B. *See* Bacon, Szabo, Yssel, Bolen, and Schall.
Bonetti, B. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.
Bonnefoy, J.-Y. *See* Chvatchko, Kosco-Vilbois, Herren, Lefort, and Bonnefoy.
— *See* Martínez-Pomares, Kosco-Vilbois, Darley, Tree, Herren, Bonnefoy, and Gordon.
Bonneville, M. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Borkowski, T.A., Letterio, J.J., Farr, A.G., and Udey, M.C. A role for endogenous transforming growth factor β1 in Langerhans cell biology: the skin of transforming growth factor β1 null mice is devoid of epidermal Langerhans cells. 2417.
Borràs, F.E. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
Borsellino, G. *See* Mandelboim, Reyburn, Valés-Gómez, Pazmany, Colonna, Borsellino, and Strominger.
Borst, J. *See* Gravestein, van Ewijk, Ossendorp, and Borst.
Bottino, C. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Boughton-Smith, N. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.
Bourne, N. *See* Yoshikawa, Hill, Stanberry, Bourne, Kurawadwala, and Krause.
Boussiotis, V.A., Barber, D.L., Lee, B.J., Gribben, J.G., Freeman, G.J., and Nadler, L.M. Differential association of protein tyrosine kinases with the T cell receptor is linked to the induction of anergy and its prevention by B7 family-mediated costimulation. 365.
Bowen, M.A. *See* Biancone, Bowen, Lim, Aruffo, Andres, and Stamenkovic.
Brady, H.R. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.
Brandtzaeg, P., Osnes, L., Øvstebø, R., Joø, G.B., Westvik, Å.-B., and Kierulf, P. Net inflammatory capacity of human septic shock plasma evaluated by a monocyte-based target cell assay: identification of interleukin-10 as a major functional deactivator of human monocytes. 51. Correction. 2075
Brasel, K. *See* Maraskovsky, Brasel, Teepe, Roux, Lyman, Shortman, and McKenna.
Brauer, P. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Bravo, R. *See* Snapper, Rosas, Zelazowski, Moorman, Kehry, Bravo, and Weih.
Breathnach, R. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Bredt, D.S. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.
Bredy, B. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.

Brenman, J.E. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.

Brennan, J., Lemieux, S., Freeman, J.D., Mager, D.L., and Takei, F. Heterogeneity among Ly-49C natural killer (NK) cells: characterization of highly related receptors with differing functions and expression patterns. 2085.

Brennan, M.J. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.

Briones, M.R.S. *See* Sinnis, Willnow, Briones, Herz, and Nussenzweig.

Bröker, I. *See* van Ham, Grüneberg, Malcherek, Bröker, Melms, and Trowsdale.

Brombacher, F. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.

Brooks, J.W. *See* Cardin, Brooks, Sarawar, and Doherty.

Brown, D.R., Fowell, D.J., Corry, D.B., Wynn, T.A., Moskowitz, N.H., Cheever, A.W., Locksley, R.M., and Reiner, S.L. β2-microglobulin–dependent NK1.1$^+$ T cells are not essential for T helper cell 2 immune responses. 1295.

—, **Green, J.M., Moskowitz, N.H., Davis, M., Thompson, C.B., and Reiner, S.L.** Limited role of CD28-mediated signals in T helper subset differentiation. 803.

Browning, J.L. *See* Rennert, Browning, Mebius, Mackay, and Hochman.

Broxmeyer, H.E., Cooper, S., Cacalano, G., Hague, N.L., Bailish, E., and Moore, M.W. Involvement of interleukin (IL) 8 receptor in negative regulation of myeloid progenitor cells in vivo: evidence from mice lacking the murine IL-8 receptor homologue. 1825.

Bruch-Gerharz, D., Fehsel, K., Suschek, C., Michel, G., Ruzicka, T., and Kolb-Bachofen, V. A proinflammatory activity of interleukin 8 in human skin: expression of the inducible nitric oxide synthase in psoriatic lesions and cultured keratinocytes. 2007.

Brunmark, A. *See* Kishimoto, Cai, Brunmark, Jackson, Peterson, and Sprent.

— *See* Lang, Jackson, Teyton, Brunmark, Kane, and Nemazee.

Buck, J. *See* O'Connell, Chua, Hoyos, Buck, Chen, Derguini, and Hämmerling.

Budd, R.C. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.

Bullard, D.C. *See* Mizgerd, Meek, Kutkoski, Bullard, Beaudet, and Doerschuk.

Bullock, T.N.J., and Eisenlohr, L.C. Ribosomal scanning past the primary initiation codon as a mechanism for expression of CTL epitopes encoded in alternative reading frames. 1319.

Burdick, M.D. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.

Burgeon, E. *See* Luo, Burgeon, and Rao.

Burke, E. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.

Burmester, G.R. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.

Burrone, O.R. *See* Batista, Anand, Presani, Efremov, and Burrone.

Burrows, J.M. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.

Burrows, S.R. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.

— *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.

Bußfeld, D. *See* Sprenger, Meyer, Kaufmann, Bußfeld, Rischkowsky, and Gemsa.

Buus, S. *See* Larsen, Pedersen, Buus, and Stryhn.

C

Cacalano, G. *See* Broxmeyer, Cooper, Cacalano, Hague, Bailish, and Moore.

Cado, D. *See* Held, Cado, and Raulet.

Cafforio, P. *See* Silvestris, Nagata, Cafforio, Silvestris, and Dammacco.

Cai, T.-Q., and Wright, S.D. Human leukocyte elastase is an endogenous ligand for the integrin CR3 (CD11b/CD18, Mac-1, $\alpha_M\beta_2$) and modulates polymorphonuclear leukocyte adhesion. 1213.

Cai, Z. *See* Kishimoto, Cai, Brunmark, Jackson, Peterson, and Sprent.

Campbell, K.S., Dessing, M., Lopez-Botet, M., Cella, M., and Colonna, M. Tyrosine phosphorylation of a human killer inhibitory receptor recruits protein tyrosine phosphatase 1C. 93.

Candéias, S., Muegge, K., and Durum, S.K. Junctional diversity in signal joints from T cell receptor beta and delta loci via terminal deoxynucleotidyl transferase and exonucleolytic activity. 1919.

Cantoni, C. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.

Cappelletti, M. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.

Carbone, F.R. *See* Kurts, Heath, Carbone, Allison, Miller, and Kosaka.

Cardin, R.D., Brooks, J.W., Sarawar, S.R., and Doherty, P.C. Progressive loss of CD8$^+$ T cell–mediated control of a γ-herpesvirus in the absence of CD4$^+$ T cells. 863.

Carroll, M.C. *See* Catalina, Carroll, Arizpe, Takashima, Estess, and Siegelman.

— *See* Sylvestre, Clynes, Ma, Warren, Carroll, and Ravetch.

Carson, D.A. *See* Corr, Lee, Carson, and Tighe.

Casasnovas, J.M. *See* Bleul, Fuhlbrigge, Casasnovas, Aiuti, and Springer.

Cashman, N.R. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.

Casiano, C.A., Martin, S.J., Green, D.R., and Tan, E.M. Selective cleavage of nuclear autoantigens during CD95 (Fas/APO-1)-mediated T cell apoptosis. 765.

Caspar, P. *See* Denkers, Scharton-Kersten, Barbieri, Caspar, and Sher.

Castedo, M. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.

— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.

Castelli, C. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.

Castellino, F. *See* Zhong, Castellino, Romagnoli, and Germain.

Castleman, W.L. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.

Catalina, M.D., Carroll, M.C., Arizpe, H., Takashima, A., Estess, P., and Siegelman, M.H. The route of antigen entry determines the requirement for L-selectin during immune responses. 2341.

Catino, J.J. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.

Caux, C., Vanbervliet, B., Massacrier, C., Dezutter-Dambuyant, C., de Saint-Vis, B., Jacquet, C., Yoneda, K., Imamura, S., Schmitt, D., and Banchereau, J. CD34$^+$ hematopoietic progenitors from human cord blood differentiate along two independent dendritic cell pathways in response to GM-CSF+TNFα. 695.

Celada, A., Borràs, F.E., Soler, C., Lloberas, J., Klemsz, M., van Beveren, C., McKercher, S., and Maki, R.A. The transcription factor PU.1 is involved in macrophage proliferation. 61.

Cella, M., Scheidegger, D., Palmer-Lehmann, K., Lane, P., Lanzavecchia, A., and Alber, G. Ligation of CD40 on dendritic cells triggers production of high levels of interleukin-12 and enhances T cell stimulatory capacity: T-T help via APC activation. 747.

— *See* Campbell, Dessing, Lopez-Botet, Cella, and Colonna.

Chacko, S. *See* Plaksin, Chacko, McPhie, Bax, Padlan, and Margulies.

Chamberlain, J.S. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.

Chan, D.W. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.

Chang, C. *See* D'Andrea, Chang, Phillips, and Lanier.

Chao, D.S., Gorospe, J.R.M., Brenman, J.E., Rafael, J.A., Peters, M.F., Froehner, S.C., Hoffman, E.P., Chamberlain, J.S., and Bredt, D.S. Selective loss of sarcolemmal nitric oxide synthase in Becker muscular dystrophy. 609.

Chapman, H.D. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.

Chappel, M.S., Hough, M.R., Mittel, A., Takei, F., Kay, R., and Humphries, R.K. Cross-linking the murine heat-stable antigen induces apoptosis in B cell precursors and suppresses the anti-CD40-induced proliferation of mature resting B lymphocytes. 1639.
Chatila, T. *See* Ho, Gullberg, and Chatila.
Chaudhuri, A. *See* Chitnis, Chaudhuri, Horuk, Pogo, and Miller.
Cheever, A.W. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.
Chen, D. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Chen, H.-M. *See* Su, Ip, Cobb, Lu, Chen, and Simon.
Chen, J. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
Chen, L. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
— *See* Blake, Johnston, Hellström, Marquardt, and Chen.
Chen, Y. *See* O'Connell, Chua, Hoyos, Buck, Chen, Derguini, and Hämmerling.
Chesler, L. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Chi, E.Y. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Chiang, G.K.S. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Chiba, C. *See* Mizoguchi, Mizoguchi, Chiba, and Bhan.
Chien, Y.-h. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
Chitnis, C.E., Chaudhuri, A., Horuk, R., Pogo, A.O., and Miller, L.H. The domain on the Duffy blood group antigen for binding *Plasmodium vivax* and *P. knowlesi* malarial parasites to erythrocytes. 1531.
Chopra, A.K. *See* Klimpel, Langley, Wypych, Abrams, Chopra, and Niesel.
Chorney, M.J. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
Chua, R. *See* O'Connell, Chua, Hoyos, Buck, Chen, Derguini, and Hämmerling.
Chvatchko, Y., Kosco-Vilbois, M.H., Herren, S., Lefort, J., and Bonnefoy, J.-Y. Germinal center formation and local immunoglobulin E (IgE) production in the lung after an airway antigenic challenge. 2353.
Cirulli, V. *See* Crisa, Cirulli, Ellisman, Ishii, Elices, and Salomon.
Ciurli, C. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.
— *See* Sutkowski, Palkama, Ciurli, Sekaly, Thorley-Lawson, and Huber.
Clark-Lewis, I. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
— *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.
Clay, T.M. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.
Clemens, D.L., and Horwitz, M.A. The *Mycobacterium tuberculosis* phagosome interacts with early endosomes and is accessible to exogenously administered transferrin. 1349.
Clevers, H. *See* Santos, Schilham, Rademakers, Marx, de Sousa, and Clevers.
Clynes, R. *See* Sylvestre, Clynes, Ma, Warren, Carroll, and Ravetch.
Cobb, B.S. *See* Su, Ip, Cobb, Lu, Chen, and Simon.
Coffman, R.L. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Colgan, S.P., Dzus, A.L., and Parkos, C.A. Epithelial exposure to hypoxia modulates neutrophil transepithelial migration. 1003.
Collin, M. *See* Herwald, Collin, Müller-Esterl, and Björck.
Collins, J.K. *See* O'Connell, O'Sullivan, Collins, and Shanahan.
Colonna, M. *See* Campbell, Dessing, Lopez-Botet, Cella, and Colonna.
— *See* Mandelboim, Reyburn, Valés-Gómez, Pazmany, Colonna, Borsellino, and Strominger.
Cook, S. *See* Dowling, Shang, Raval, Menonna, Cook, and Husar.
Cooke, K.S. *See* Hege, Cooke, Finer, Zsebo, and Roberts.
Cooper, S. *See* Broxmeyer, Cooper, Cacalano, Hague, Bailish, and Moore.
Cooper, S.M. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.
Copeland, E.M., III. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Corey, E.J. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.
Corinti, S. *See* Sallusto, Nicolò, De Maria, Corinti, and Testi.
Corr, M., Lee, D.J., Carson, D.A., and Tighe, H. Gene vaccination with naked plasmid DNA: mechanism of CTL priming. 1555.
Corry, D.B. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.
— *See* Roth, Corry, Locksley, Abrams, Litton, and Fisher.
Craft, J. *See* Peng, Robert, Hayday, and Craft.
— *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Crameri, R., Faith, A., Hemmann, S., Jaussi, R., Ismail, C., Menz, G., and Blaser, K. Humoral and cell-mediated autoimmunity in allergy to *Aspergillus fumigatus*. 265.
Cresswell, P. *See* Denzin, Hammond, and Cresswell.
Crisa, L., Cirulli, V., Ellisman, M.H., Ishii, J.K., Elices, M.J., and Salomon, D.R. Cell adhesion and migration are regulated at distinct stages of thymic T cell development: the roles of fibronectin, VLA4, and VLA5. 215.
— *See* Todd, Lipps, Crisa, Salomon, and Tsoukas.
Crispe, I.N. *See* Livák, Welsh, Guidos, Crispe, Danska, and Schatz.
Cross, S.M. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.
Csernok, E. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.

D

Dammacco, F. *See* Silvestris, Nagata, Cafforio, Silvestris, and Dammacco.
D'Andrea, A., Chang, C., Phillips, J.H., and Lanier, L.L. Regulation of T cell lymphokine production by killer cell inhibitory receptor recognition of self HLA class I alleles. 789.
Danska, J.S. *See* Livák, Welsh, Guidos, Crispe, Danska, and Schatz.
Darley, E. *See* Martínez-Pomares, Kosco-Vilbois, Darley, Tree, Herren, Bonnefoy, and Gordon.
Datta, R. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Daugas, E. *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.
David, C.S. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.
David-Ameline, J. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Davidson, E.A. *See* Marshall, Hasegawa, Davidson, Nussenzweig, and Whitlow.
Davidson, N.J., Leach, M.W., Fort, M.M., Thompson-Snipes, L., Kühn, R., Müller, W., Berg, D.J., and Rennick, D.M. T helper cell 1–type $CD4^+$ T cells, but not B cells, mediate colitis in interleukin 10–deficient mice. 241.
Davis, K.A. *See* Sornasse, Larenas, Davis, de Vries, and Yssel.
Davis, M. *See* Brown, Green, Moskowitz, Davis, Thompson, and Reiner.
Davis, M.M. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
Debacker, V. *See* Leclercq, Debacker, De Smedt, and Plum.
De Baetselier, P. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.
Decker, L.L., Shankar, P., Khan, G., Freeman, R.B., Dezube, B.J., Lieberman, J., and Thorley-Lawson, D.A. The kaposi sarcoma-associated herpesvirus (KSHV) is present as an intact latent genome in KS tissue but replicates in the peripheral blood mononuclear cells of KS patients. 283.

de Klein, A. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
de la Hera, A. *See* Ghia, ten Boekel, Sanz, de la Hera, Rolink, and Melchers.
De Maria, R. *See* Sallusto, Nicolò, De Maria, Corinti, and Testi.
Dempsey-Collier, M. *See* Harrison, Dempsey-Collier, Kramer, and Takahashi.
Denkers, E.Y., Scharton-Kersten, T., Barbieri, S., Caspar, P., and Sher, A. A role for $CD4^+NK1.1^+$ T lymphocytes as major histocompatibility complex class II independent helper cells in the generation of $CD8^+$ effector function against intracellular infection. 131.
Denzin, L.K., Hammond, C., and Cresswell, P. HLA-DM interactions with intermediates in HLA-DR maturation and a role for HLA-DM in stabilizing empty HLA-DR molecules. 2153.
Derguini, F. *See* O'Connell, Chua, Hoyos, Buck, Chen, Derguini, and Hämmerling.
de Saint-Vis, B. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
DeSilva, A.D. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
De Smedt, M. *See* Leclercq, Debacker, De Smedt, and Plum.
De Smedt, T., Pajak, B., Muraille, E., Lespagnard, L., Heinen, E., De Baetselier, P., Urbain, J., Leo, O., and Moser, M. Regulation of dendritic cell numbers and maturation by lipopolysaccharide in vivo. 1413.
de Sousa, M. *See* Santos, Schilham, Rademakers, Marx, de Sousa, and Clevers.
DesRoches, L. *See* Lederer, Perez, DesRoches, Kim, Abbas, and Lichtman.
Dessing, M. *See* Campbell, Dessing, Lopez-Botet, Cella, and Colonna.
de Vries, J.E. *See* Groux, Bigler, de Vries, and Roncarolo.
— *See* Sornasse, Larenas, Davis, de Vries, and Yssel.
Dewar, A. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.
Dezube, B.J. *See* Decker, Shankar, Khan, Freeman, Dezube, Lieberman, and Thorley-Lawson.
Dezutter-Dambuyant, C. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
Dianda, L. *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Di Donato, C. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Diekmann, D. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Dittel, B.N. *See* Wolf, Dittel, Hardardottir, and Janeway.
Doerschuk, C.M. *See* Mizgerd, Meek, Kutkoski, Bullard, Beaudet, and Doerschuk.
Doherty, P.C. *See* Cardin, Brooks, Sarawar, and Doherty.
Doherty, T.M. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Donovan, J.A. *See* Ota, Beitz, Scharenberg, Donovan, Kinet, and Samelson.
Doran, J.E. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.
Dörner, T. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.
Dowling, P., Shang, G., Raval, S., Menonna, J., Cook, S., and Husar, W. Involvement of the CD95 (APO-1/Fas) receptor/ligand system in multiple sclerosis brain. 1513.
D'Souza, S.D., Bonetti, B., Balasingam, V., Cashman, N.R., Barker, P.A., Troutt, A.B., Raine, C.S., and Antel, J.P. Multiple sclerosis: fas signaling in oligodendrocyte cell death. 2361.
Dubois, P.M. *See* Pihlgren, Dubois, Tomkowiak, Sjögren, and Marvel.
Dudley, M.E., and Roopenian, D.C. Loss of a unique tumor antigen by cytotoxic T lymphocyte immunoselection from a 3-methylcholanthrene–induced mouse sarcoma reveals secondary unique and shared antigens. 441.
Duncan, G.S., Mittrücker, H.-W., Kägi, D., Matsuyama, T., and Mak, T.W. The transcription factor interferon regulatory factor-1 is essential for natural killer cell function in vivo. 2043.
Dunn, A. *See* Saunders, Lucas, Ismaili, Wu, Maraskovsky, Dunn, and Shortman.
Durum, S.K. *See* Candéias, Muegge, and Durum.
Dyall, R., Fremont, D.H., Jameson, S.C., and Nikolić-Žugić, J. T cell receptor (TCR) recognition of MHC class I variants: intermolecular second-site reversion provides evidence for peptide/MHC conformational variation. 253.
Dzus, A.L. *See* Colgan, Dzus, and Parkos.

E

Ebihara, Y. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Edwards, P.D. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Efremov, D.G. *See* Batista, Anand, Presani, Efremov, and Burrone.
Eichmann, K. *See* Falk, Biro, Kohler, and Eichmann.
Eisenlohr, L.C. *See* Bullock and Eisenlohr.
Elices, M.J. *See* Crisa, Cirulli, Ellisman, Ishii, Elices, and Salomon.
Elliott, S.L. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.
Ellisman, M.H. *See* Crisa, Cirulli, Ellisman, Ishii, Elices, and Salomon.
Emoto, Y. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Episkopou, V. *See* Pasparakis, Alexopoulou, Episkopou, and Kollias.
Eriksen, P. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Erwin, A.L., Haynes, P.A., Rice, P.A., and Gotschlich, E.C. Conservation of the lipooligosaccharide synthesis locus *lgt* among strains of *Neisseria gonorrhoeae*: requirement for *lgtE* in synthesis of the 2C7 epitope and of the β chain of strain 15253. 1233.
Estess, P. *See* Catalina, Carroll, Arizpe, Takashima, Estess, and Siegelman.
Eto, S. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Ettlin, U. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Evans, C.F., Horwitz, M.S., Hobbs, M.V., and Oldstone, M.B.A. Viral infection of transgenic mice expressing a viral protein in oligodendrocytes leads to chronic central nervous system autoimmune disease. 2371.
Evans, R.L. *See* Zhang, Berenstein, Evans, and Siraganian.
Even, J. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.

F

Faith, A. *See* Crameri, Faith, Hemmann, Jaussi, Ismail, Menz, and Blaser.
Falco, M. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Falk, I., Biro, J., Kohler, H., and Eichmann, K. Proliferation kinetics associated with T cell receptor-β chain selection of fetal murine thymocytes. 2327.
Falkenburg, J.H.F. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.
Fanslow, W.C. *See* Karmann, Min, Fanslow, and Pober.
Farr, A.G. *See* Borkowski, Letterio, Farr, and Udey.
Fathman, C.G. *See* Krieger, Yin, and Fathman.
Fehsel, K. *See* Bruch-Gerharz, Fehsel, Suschek, Michel, Ruzicka, and Kolb-Bachofen.

Feist, E., Dörner, T., Kuckelkorn, U., Schmidtke, G., Micheel, B., Hiepe, F., Burmester, G.R., and Kloetzel, P.-M. Proteasome α-type subunit C9 is a primary target of autoantibodies in sera of patients with myositis and systemic lupus erythematosus. 1313.

Fernandez, J.M. *See* Lacerda, Ladanyi, Louie, Fernandez, Papadopoulos, and O'Reilly.

Fibbe, W.E. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.

Field, M. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kinninmonth, Weidner, Mumford, and Liew.

Finer, M.H. *See* Hege, Cooke, Finer, Zsebo, and Roberts.

Finkelman, F. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.

Fischer, K.-D. *See* Pani, Fischer, Mlinaric-Rascan, and Siminovitch.

Fisher, S.J. *See* Roth, Corry, Locksley, Abrams, Litton, and Fisher.

Fitts, M.G. *See* Pospisil, Fitts, and Mage.

Flamand, V., Shores, E.W., Tran, T., Huang, K., Lee, E., Grinberg, A., Kinet, J.-P., and Love, P.E. Delayed maturation of $CD4^-CD8^-$ FcγRII/III$^+$ T and natural killer cell precursors in FcεRIγ transgenic mice. 1725.

Flanagan, J.G. *See* Lorenz, Bergemann, Steinberg, Flanagan, Li, Galli, and Neel.

Flanders, K.C. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.

Flavell, R.A. *See* Grewal, Grewal, Wong, Picarella, Janeway, and Flavell.

Fleming, S.A. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.

Födinger, M. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.

Ford, A.L., Foulcher, E., Lemckert, F.A., and Sedgwick, J.D. Microglia induce CD4 T lymphocyte final effector function and death. 1737.

Fort, M.M. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.

Foulcher, E. *See* Ford, Foulcher, Lemckert, and Sedgwick.

Fowell, D. *See* Saoudi, Seddon, Fowell, and Mason.

Fowell, D.J. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.

Fraser, J.D. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.

Frati, L. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.

Freed, J.H. *See* Wagner, Hagman, Linsley, Hodsdon, Freed, and Newell.

Freeman, G.J. *See* Boussiotis, Barber, Lee, Gribben, Freeman, and Nadler.

Freeman, J.D. *See* Brennan, Lemieux, Freeman, Mager, and Takei.

Freeman, R.B. *See* Decker, Shankar, Khan, Freeman, Dezube, Lieberman, and Thorley-Lawson.

Fremont, D.H. *See* Dyall, Fremont, Jameson, and Nikolić-Žugić.

Frevert, U. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.

— *See* Shakibaei and Frevert.

Frey, A., Giannasca, K.T., Weltzin, R., Giannasca, P.J., Reggio, H., Lencer, W.I., and Neutra, M.R. Role of the glycocalyx in regulating access of microparticles to apical plasma membranes of intestinal epithelial cells: implications for microbial attachment and oral vaccine targeting. 1045.

Friedlander, R.M., Gagliardini, V., Rotello, R.J., and Yuan, J. Functional role of interleukin 1β (IL-1β) in IL-1β–converting enzyme–mediated apoptosis. 717. Correction. 1593.

Friend, D.S. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Šali, and Gurish.

Froehner, S.C. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.

Fry, A.M., Lanier, L.L., and Weiss, A. Phosphotyrosines in the killer cell inhibitory receptor motif of NKB1 are required for negative signaling and for association with protein tyrosine phosphatase 1C. 295.

Fuhlbrigge, R.C. *See* Bleul, Fuhlbrigge, Casasnovas, Aiuti, and Springer.

Fujimoto, M. *See* Kimata, Fujimoto, Ishioka, and Yoshida.

Fujimoto, S. *See* Hattori, Kawamoto, Fujimoto, Kuno, and Katsura.

Fujiwara, H. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.

G

Gabriele, L. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.

Gagliardini, V. *See* Friedlander, Gagliardini, Rotello, and Yuan.

Galli, S.J. *See* Lorenz, Bergemann, Steinberg, Flanagan, Li, Galli, and Neel.

Gallichan, W.S., and Rosenthal, K.L. Long-lived cytotoxic T lymphocyte memory in mucosal tissues after mucosal but not systemic immunization. 1879.

Garaud, F. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.

García, E. *See* Arrecubieta, López, and García.

Garcia-Sanz, J.A., and Lenig, D. Translational control of interleukin 2 messenger RNA as a molecular mechanism of T cell anergy. 159.

Geissler, K., Öhler, L., Födinger, M., Virgolini, I., Leimer, M., Kabrna, E., Kollars, M., Skoupy, S., Bohle, B., Rogy, M., and Lechner, K. Interleukin 10 inhibits growth and granulocyte/macrophage colony–stimulating factor production in chronic myelomonocytic leukemia cells. 1377.

Gelfand, E.W. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.

Gemsa, D. *See* Sprenger, Meyer, Kaufmann, Bußfeld, Rischkowsky, and Gemsa.

Gerber, B. *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.

Germain, R.N. *See* Reis e Sousa, Levine, and Germain.

— *See* Zhong, Castellino, Romagnoli, and Germain.

Geuskens, M. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.

— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.

Ghayur, T., Hugunin, M., Talanian, R.V., Ratnofsky, S., Quinlan, C., Emoto, Y., Pandey, P., Datta, R., Huang, Y., Kharbanda, S., Allen, H., Kamen, R., Wong, W., and Kufe, D. Proteolytic activation of protein kinase C δ by an ICE/CED 3-like protease induces characteristics of apoptosis. 2399.

Ghia, P., ten Boekel, E., Sanz, E., de la Hera, A., Rolink, A., and Melchers, F. Ordering of human bone marrow B lymphocyte precursors by single-cell polymerase chain reaction analyses of the rearrangement status of the immunoglobulin H and L chain gene loci. 2217.

Ghildyal, N., Friend, D.S., Stevens, R.L., Austen, K.F., Huang, C., Penrose, J.F., Šali, A., and Gurish, M.F. Fate of two mast cell tryptases in V3 mastocytosis and normal BALB/c mice undergoing passive systemic anaphylaxis: prolonged retention of exocytosed mMCP-6 in connective tissues, and rapid accumulation of enzymatically active mMCP-7 in the blood. 1061.

Ghiso, J. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.

Giannasca, K.T. *See* Frey, Giannasca, Weltzin, Giannasca, Reggio, Lencer, and Neutra.

Giannasca, P.J. *See* Frey, Giannasca, Weltzin, Giannasca, Reggio, Lencer, and Neutra.

Giblin, P.A. *See* Hwang, Singer, Giblin, Yednock, Bacon, Simon, and Rosen.

Gilboa, E. *See* Boczkowski, Nair, Snyder, and Gilboa.

Gilchrest, B.A. *See* Hara, Toyoda, Yaar, Bhawan, Avila, Penner, and Gilchrest.

Gilkeson, G.S. *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.

Gilligan, H.M., Bredy, B., Brady, H.R., Hébert, M.-J., Slayter, H.S., Xu, Y., Rauch, J., Shia, M.A., Koh, J.S., and Levine, J.S. Antineutrophil cytoplasmic autoantibodies interact with primary granule constituents on the surface of apoptotic neutrophils in the absence of neutrophil priming. 2231.

Giraldo, A.A. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.
Glass, M.C. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Gong, S., Sanchez, M., and Nussenzweig, M.C. Counterselection against Dμ is mediated through immunoglobulin (Ig)α-Igβ. 2079.
González, J., Ramalho-Pinto, F.J., Frevert, U., Ghiso, J., Tomlinson, S., Scharfstein, J., Corey, E.J., and Nussenzweig, V. Proteasome activity is required for the stage-specific transformation of a protozoan parasite. 1909.
Gonzalo, J.A. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.
Gordon, S. *See* Martínez-Pomares, Kosco-Vilbois, Darley, Tree, Herren, Bonnefoy, and Gordon.
Gordon, T.P. *See* Reynolds, Gordon, Purcell, Jackson, and McCluskey.
Gorospe, J.R.M. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.
Goselink, H.M., van Damme, J., Hiemstra, P.S., Wuyts, A., Stolk, J., Fibbe, W.E., Willemze, R., and Falkenburg, J.H.F. Colony growth of human hematopoietic progenitor cells in the absence of serum is supported by a proteinase inhibitor identified as antileukoproteinase. 1305.
Gotschlich, E.C. *See* Erwin, Haynes, Rice, and Gotschlich.
Granelli-Piperno, A., Moser, B., Pope, M., Chen, D., Wei, Y., Isdell, F., O'Doherty, U., Paxton, W., Koup, R., Mojsov, S., Bhardwaj, N., Clark-Lewis, I., Baggiolini, M., and Steinman, R.M. Efficient interaction of HIV-1 with purified dendritic cells via multiple chemokine coreceptors. 2433.
Granger, D.L. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
— *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.
Granger, L.G. *See* Punt, Suzuki, Granger, Sharrow, and Singer.
Gravestein, L.A., van Ewijk, W., Ossendorp, F., and Borst, J. CD27 cooperates with the pre-T cell receptor in the regulation of murine T cell development. 675.
Green, D.R. *See* Casiano, Martin, Green, and Tan.
Green, J.M. *See* Brown, Green, Moskowitz, Davis, Thompson, and Reiner.
Greene, W.C. *See* Shapiro, Mollenauer, Greene, and Weiss.
Gregory, P. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Gregory, S.A. *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Grewal, I.S., Grewal, K.D., Wong, F.S., Picarella, D.E., Janeway, C.A., Jr., and Flavell, R.A. Local expression of transgene encoded TNFα in islets prevents autoimmune diabetes in nonobese diabetic (NOD) mice by preventing the development of auto-reactive islet-specific T cells. 1963.
Grewal, K.D. *See* Grewal, Grewal, Wong, Picarella, Janeway, and Flavell.
Gribben, J.G. *See* Boussiotis, Barber, Lee, Gribben, Freeman, and Nadler.
Grimminger, F., Hattar, K., Papavassilis, C., Temmesfeld, B., Csernok, E., Gross, W.L., Seeger, W., and Sibelius, U. Neutrophil activation by anti-proteinase 3 antibodies in Wegener's granulomatosis: role of exogenous arachidonic acid and leukotriene B_4 generation. 1567.
Grinberg, A. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.
Gross, W.L. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.
Groux, H., Bigler, M., de Vries, J.E., and Roncarolo, M.-G. Interleukin-10 induces a long-term antigen-specific anergic state in human $CD4^+$ T cells. 19.
Grüneberg, U. *See* van Ham, Grüneberg, Malcherek, Bröker, Melms, and Trowsdale.
Guehler, S.R., Bluestone, J.A., and Barrett, T.A. Immune deviation of 2C transgenic intraepithelial lymphocytes in antigen-bearing hosts. 493.
Guidos, C.J. *See* Livák, Welsh, Guidos, Crispe, Danska, and Schatz.
Gulino, A. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Gullberg, M. *See* Ho, Gullberg, and Chatila.
Gumperz, J.E. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
Guo, Y., Wu, Y., Shinde, S., Sy, M.-S., Aruffo, A., and Liu, Y. Identification of a costimulatory molecule rapidly induced by CD40L as CD44H. 955.
Gurish, M.F. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Sali, and Gurish.
Gütgemann, I. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
Gutierrez-Ramos, J.C. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.

H

Haberman, A.M. *See* Hannum, Ni, Haberman, Weigert, and Shlomchik.
Habuchi, H. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Haeffner, A. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.
Hagman, J. *See* Wagner, Hagman, Linsley, Hodsdon, Freed, and Newell.
Hague, N.L. *See* Broxmeyer, Cooper, Cacalano, Hague, Bailish, and Moore.
Hall, A. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Hall, C.F. *See* Kusner, Hall, and Schlesinger.
Hamann, J., Vogel, B., van Schijndel, G.M.W., and van Lier, R.A.W. The seven-span transmembrane receptor CD97 has a cellular ligand (CD55, DAF). 1185.
Hamaoka, T. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Hämmerling, G.J. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.
Hämmerling, U. *See* O'Connell, Chua, Hoyos, Buck, Chen, Derguini, and Hämmerling.
Hammond, C. *See* Denzin, Hammond, and Cresswell.
Han, S. *See* Zheng, Han, and Kelsoe.
Hannum, L.G., Ni, D., Haberman, A.M., Weigert, M.G., and Shlomchik, M.J. A disease-related rheumatoid factor autoantibody is not tolerized in a normal mouse: implications for the origins of autoantibodies in autoimmune disease. 1269.
Hansmann, C. *See* Prager, Sunder-Plassmann, Hansmann, Koch, Holter, Knapp, and Stockinger.
Hansmann, M.-L. *See* Kanzler, Küppers, Hansmann, and Rajewsky.
Hanson, M.S. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.
Hara, M., Toyoda, M., Yaar, M., Bhawan, J., Avila, E.M., Penner, I.R., and Gilchrest, B.A. Innervation of melanocytes in human skin. 1385.
Hardardottir, F. *See* Wolf, Dittel, Hardardottir, and Janeway.
Harley, P.H. *See* Wu, Harley, Punt, Sharrow, and Kearse.
Harlos, K. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
Harrison, L.C., Dempsey-Collier, M., Kramer, D.R., and Takahashi, K. Aerosol insulin induces regulatory CD8 γδ T cells that prevent murine insulin-dependent diabetes. 2167.
Hartley, J.W. *See* Sechler, Lawler, Hartley, Morse, McCarty, Swofford, and Rosenberg.
Hasegawa, A. *See* Marshall, Hasegawa, Davidson, Nussenzweig, and Whitlow.
Hasegawa, K. *See* Mizuno, Katagiri, Hasegawa, Ogimoto, and Yakura.
Hasegawa-Nishiwaki, H. *See* Tsujimura, Takahashi, Morita, Hasegawa-Nishiwaki, Iwase, and Obata.
Hashimoto, K., Sohn, S.J., Levin, S.D., Tada, T., Perlmutter, R.M., and Nakayama, T. Requirement for $p56^{lck}$ tyrosine kinase activation in T cell receptor–mediated thymic selection. 931.
Haskins, K. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.

Hassanali, M.Y. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
Hattar, K. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.
Hattori, N., Kawamoto, H., Fujimoto, S., Kuno, K., and Katsura, Y. Involvement of transcription factors TCF-1 and GATA-3 in the initiation of the earliest step of T cell development in the thymus. 1137.
—, Kawamoto, H., and Katsura, Y. Isolation of the most immature population of murine fetal thymocytes that includes progenitors capable of generating T, B, and myeloid cells. 1901.
Hauser, S.D. *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Hayday, A.C. *See* Peng, Robert, Hayday, and Craft.
— *See* Szczepanik, Anderson, Ushio, Ptak, Owen, Hayday, and Askenase.
— *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Haynes, L. *See* Linton, Haynes, Klinman, and Swain.
Haynes, P.A. *See* Erwin, Haynes, Rice, and Gotschlich.
He, Y.-W., and Malek, T.R. Interleukin-7 receptor α is essential for the development of $\gamma\delta^+$ T cells, but not natural killer cells. 289.
Heath, W.R. *See* Kurts, Heath, Carbone, Allison, Miller, and Kosaka.
Hébert, M.-J. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.
Hege, K.M., Cooke, K.S., Finer, M.H., Zsebo, K.M., and Roberts, M.R. Systemic T cell–independent tumor immunity after transplantation of universal receptor–modified bone marrow into SCID mice. 2261.
Heinen, E. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.
Held, W., Cado, D., and Raulet, D.H. Transgenic expression of the Ly49A natural killer cell receptor confers class I major histocompatibility complex (MHC)-specific inhibition and prevents bone marrow allograft rejection. 2037.
Hellström, K.E. *See* Blake, Johnston, Hellström, Marquardt, and Chen.
Hemmann, S. *See* Crameri, Faith, Hemmann, Jaussi, Ismail, Menz, and Blaser.
Henderson, W.R., Jr., Lewis, D.B., Albert, R.K., Zhang, Y., Lamm, W.J.E., Chiang, G.K.S., Jones, F., Eriksen, P., Tien, Y.-t., Jonas, M., and Chi, E.Y. The importance of leukotrienes in airway inflammation in a mouse model of asthma. 1483.
Hendricks, R.L. *See* Tang and Hendricks.
Hengartner, H. *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Henkart, P.A. *See* Sarin, Wu, and Henkart.
Herren, S. *See* Chvatchko, Kosco-Vilbois, Herren, Lefort, and Bonnefoy.
— *See* Martínez-Pomares, Kosco-Vilbois, Darley, Tree, Herren, Bonnefoy, and Gordon.
Herwald, H., Collin, M., Müller-Esterl, W., and Björck, L. Streptococcal cysteine proteinase releases kinins: a novel virulence mechanism. 665.
Herz, J. *See* Sinnis, Willnow, Briones, Herz, and Nussenzweig.
Heufler, C. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.
Hiemstra, P.S. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.
Hiepe, F. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.
Hilarius, P.M. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Hill, J.M. *See* Yoshikawa, Hill, Stanberry, Bourne, Kurawadwala, and Krause.
Hirsch, F. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.
Hirsch, T. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.
— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.
Ho, N., Gullberg, M., and Chatila, T. Activation protein 1–dependent transcriptional activation of interleukin 2 Gene by Ca^{2+}/calmodulin kinase type IV/Gr. 101.
Hobbs, M.V. *See* Evans, Horwitz, Hobbs, and Oldstone.
Hochman, P.S. *See* Rennert, Browning, Mebius, Mackay, and Hochman.
Hodgkin, P.D., Lee, J.-H., and Lyons, A.B. B cell differentiation and isotype switching is related to division cycle number. 277.
Hodsdon, W. *See* Wagner, Hagman, Linsley, Hodsdon, Freed, and Newell.
Hoffman, E.P. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.
Hogquist, K.A. *See* Alberola-Ila, Hogquist, Swan, Bevan, and Perlmutter.
Hollis, D. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
Holt, P.G. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Holter, W. *See* Prager, Sunder-Plassmann, Hansmann, Koch, Holter, Knapp, and Stockinger.
Holzmann, B. *See* Neumann, Luz, Pfeffer, and Holzmann.
Horuk, R. *See* Chitnis, Chaudhuri, Horuk, Pogo, and Miller.
Horwitz, M.A. *See* Clemens and Horwitz.
Horwitz, M.S. *See* Evans, Horwitz, Hobbs, and Oldstone.
Hough, M.R. *See* Chappel, Hough, Mittel, Takei, Kay, and Humphries.
Houssaint, E. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Howard, M.C. *See* Solvason, Wu, Kabra, Wu, Lees, and Howard.
Hoyos, B. *See* O'Connell, Chua, Hoyos, Buck, Chen, Derguini, and Hämmerling.
Huang, C. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Sali, and Gurish.
Huang, F.-P. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kinninmonth, Weidner, Mumford, and Liew.
Huang, K. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.
Huang, Y. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Huber, B.T. *See* Sutkowski, Palkama, Ciurli, Sekaly, Thorley-Lawson, and Huber.
Hugunin, M. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Humborg, C. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.
Humphries, R.K. *See* Chappel, Hough, Mittel, Takei, Kay, and Humphries.
Hunziker, R.D. *See* Bendelac, Hunziker, and Lantz.
Husar, W. *See* Dowling, Shang, Raval, Menonna, Cook, and Husar.
Hwang, S.T., Singer, M.S., Giblin, P.A., Yednock, T.A., Bacon, K.B., Simon, S.I., and Rosen, S.D. GlyCAM-1, a physiologic ligand for L-selectin, activates β2 integrins on naive peripheral lymphocytes. 1343.

I

Iacomini, J. *See* Jacobs, Iacomini, van de Ven, Tonegawa, and Berns.
Iannettoni, M.D. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Ikuta, K. *See* Kanamori, Ishimaru, Nanno, Maki, Ikuta, Nariuchi, and Ishikawa.
— *See* Maki, Sunaga, and Ikuta.
Imamura, S. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
Ip, H.S. *See* Su, Ip, Cobb, Lu, Chen, and Simon.
Isakson, P.C. *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Isdell, F. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Ishii, J.K. *See* Crisa, Cirulli, Ellisman, Ishii, Elices, and Salomon.

Ishikawa, H. *See* Kanamori, Ishimaru, Nanno, Maki, Ikuta, Nariuchi, and Ishikawa.
Ishimaru, K. *See* Kanamori, Ishimaru, Nanno, Maki, Ikuta, Nariuchi, and Ishikawa.
Ishioka, C. *See* Kimata, Fujimoto, Ishioka, and Yoshida.
Ismail, C. *See* Crameri, Faith, Hemmann, Jaussi, Ismail, Menz, and Blaser.
Ismaili, J. *See* Saunders, Lucas, Ismaili, Wu, Maraskovsky, Dunn, and Shortman.
Iwase, S. *See* Tsujimura, Takahashi, Morita, Hasegawa-Nishiwaki, Iwase, and Obata.
Iwata, S. *See* Minegishi, Tachibana, Sato, Iwata, Nojima, and Morimoto.

J

Jackson, D.C. *See* Reynolds, Gordon, Purcell, Jackson, and McCluskey.
Jackson, M. *See* Lang, Jackson, Teyton, Brunmark, Kane, and Nemazee.
Jackson, M.R. *See* Kishimoto, Cai, Brunmark, Jackson, Peterson, and Sprent.
Jackson, S. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Jacobs, H., Iacomini, J., van de Ven, M., Tonegawa, S., and Berns, A. Domains of the TCRβ-chain required for early thymocyte development. 1833.
Jacquet, C. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
Jahn, T. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Jakobsen, B.K. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
Jameson, S.C. *See* Dyall, Fremont, Jameson, and Nikolić-Žugić.
Janeway, C.A., Jr. *See* Grewal, Grewal, Wong, Picarella, Janeway, and Flavell.
— *See* Wolf, Dittel, Hardardottir, and Janeway.
Janke, K. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.
Jankovic, M. *See* Papavasiliou, Jankovic, and Nussenzweig.
Jaussi, R. *See* Crameri, Faith, Hemmann, Jaussi, Ismail, Menz, and Blaser.
Jennewein, P. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.
Jesson, M. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Jia, G.-Q., Gonzalo, J.A., Lloyd, C., Kremer, L., Lu, L., Martinez-A, C., Wershil, B.K., and Gutierrez-Ramos, J.C. Distinct expression and function of the novel mouse chemokine monocyte chemotactic protein-5 in lung allergic inflammation. 1939.
Johnston, J.V. *See* Blake, Johnston, Hellström, Marquardt, and Chen.
Jonas, M. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Jones, B. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Jones, E.Y. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
Jones, F. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Jones, P.P. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
Jones, S.A. *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.
Joø, G.B. *See* Brandtzaeg, Osnes, Øvstebø, Joø, Westvik, and Kierulf.
Jourdan, M. *See* Reininger, Winkler, Kalberer, Jourdan, Melchers, and Rolink.
Joyce, S., Negishi, I., Boesteanu, A., DeSilva, A.D., Sharma, P., Chorney, M.J., Loh, D.Y., and Van Kaer, L. Expansion of natural ($NK1^+$) T cells that express αβ T cell receptors in transporters associated with antigen presentation-1 null and thymus leukemia antigen positive mice. 1579.

K

Kabra, N. *See* Solvason, Wu, Kabra, Wu, Lees, and Howard.
Kabrna, E. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
Kadlecek, T.A. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Kagara, S. *See* Tsunawaki, Kagara, Yoshikawa, Yoshida, Kuratsuji, and Namiki.
Kägi, D. *See* Duncan, Mittrücker, Kägi, Matsuyama, and Mak.
— *See* Sad, Kägi, and Mosmann.
— *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Kaibara, A. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Kalberer, C.P. *See* Reininger, Winkler, Kalberer, Jourdan, Melchers, and Rolink.
Kamen, R. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Kämpgen, E. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.
Kanakaraj, P. *See* Trotta, Kanakaraj, and Perussia.
Kanamori, Y., Ishimaru, K., Nanno, M., Maki, K., Ikuta, K., Nariuchi, H., and Ishikawa, H. Identification of novel lymphoid tissues in murine intestinal mucosa where clusters of $c\text{-}kit^+$ $IL\text{-}7R^+$ $Thy1^+$ lympho-hemopoietic progenitors develop. 1449.
Kane, K. *See* Lang, Jackson, Teyton, Brunmark, Kane, and Nemazee.
Kane, K.P. *See* Shen, Potter, and Kane.
Kaneko, Y. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Kang, X. *See* Wang, Appella, Kawakami, Kang, and Rosenberg.
Kanzler, H., Küppers, R., Hansmann, M.-L., and Rajewsky, K. Hodgkin and Reed-Sternberg cells in Hodgkin's disease represent the outgrowth of a dominant tumor clone derived from (crippled) germinal center B cells. 1495.
Kapp, J.A. *See* Ke and Kapp.
Kappler, J.W. *See* Liu, Kappler, and Marrack.
Karandikar, N.J., Vanderlugt, C.L., Walunas, T.L., Miller, S.D., and Bluestone, J.A. CTLA-4: a negative regulator of autoimmune disease. 783.
Karasek, M.A. *See* Vora, Romero, and Karasek.
Karmann, K., Min, W., Fanslow, W.C., and Pober, J.S. Activation and homologous desensitization of human endothelial cells by CD40 ligand, tumor necrosis factor, and interleukin 1. 173.
Katagiri, T. *See* Mizuno, Katagiri, Hasegawa, Ogimoto, and Yakura.
Katsura, Y. *See* Hattori, Kawamoto, Fujimoto, Kuno, and Katsura.
— *See* Hattori, Kawamoto, and Katsura.
Katz, J.F., Stebbins, C., Appella, E., and Sant, A.J. Invariant chain and DM edit self-peptide presentation by major histocompatibility complex (MHC) class II molecules. 1747.
Kaufmann, A. *See* Sprenger, Meyer, Kaufmann, Bußfeld, Rischkowsky, and Gemsa.
Kawakami, Y. *See* Wang, Appella, Kawakami, Kang, and Rosenberg.
Kawamoto, H. *See* Hattori, Kawamoto, Fujimoto, Kuno, and Katsura.
— *See* Hattori, Kawamoto, and Katsura.
Kay, R. *See* Chappel, Hough, Mittel, Takei, Kay, and Humphries.
Ke, Y., and Kapp, J.A. Exogenous antigens gain access to the major histocompatibility complex class I processing pathway in B cells by receptor-mediated uptake. 1179.
Kearse, K.P. *See* Wu, Harley, Punt, Sharrow, and Kearse.
Kehry, M.R. *See* Snapper, Rosas, Zelazowski, Moorman, Kehry, Bravo, and Weih.
Kelsoe, G. *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
— *See* Zheng, Han, and Kelsoe.
Kenney, J.S. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Kersh, G.J., and Allen, P.M. Structural basis for T cell recognition of altered peptide ligands: a single T cell receptor can productively recognize a large continuum of related ligands. 1259.

Khan, G. *See* Decker, Shankar, Khan, Freeman, Dezube, Lieberman, and Thorley-Lawson.
Khandekar, S. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Kharbanda, S. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Kiener, P.A. *See* Liles, Kiener, Ledbetter, Aruffo, and Klebanoff.
Kienzle, G. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.
Kierulf, P. *See* Brandtzaeg, Osnes, Øvstebø, Joø, Westvik, and Kierulf.
Kim, S.M. *See* Lederer, Perez, DesRoches, Kim, Abbas, and Lichtman.
Kimata, H., Fujimoto, M., Ishioka, C., and Yoshida, A. Histamine selectively enhances human immunoglobulin E (IgE) and IgG4 production induced by anti-CD58 monoclonal antibody. 357.
Kimata, K. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Kimoto, M. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Kinet, J.-P. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.
— *See* Ota, Beitz, Scharenberg, Donovan, Kinet, and Samelson.
King, I. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
Kinninmonth, A. *See* McInnes, Leung, Field, Wei, Huang, Sturrock Kinninmonth, Weidner, Mumford, and Liew.
Kishimoto, H., Cai, Z., Brunmark, A., Jackson, M.R., Peterson, P.A., and Sprent, J. Differing roles for B7 and intercellular adhesion molecule-1 in negative selection of thymocytes. 531.
Kishimoto, T. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Klebanoff, S.J. *See* Liles, Kiener, Ledbetter, Aruffo, and Klebanoff.
Klein, J.R. Whence the intestinal intraepithelial lymphocyte? 1203.
Klemsz, M. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
Klenerman, P. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
Klimpel, G.R., Langley, K.E., Wypych, J., Abrams, J.S., Chopra, A.K., and Niesel, D.W. A role for stem cell factor (SCF): c-kit interaction(s) in the intestinal tract response to *Salmonella typhimurium* infection. 271.
Klinman, N.R. *See* Linton, Haynes, Klinman, and Swain.
Kloetzel, P.-M. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.
Knapp, W. *See* Prager, Sunder-Plassmann, Hansmann, Koch, Holter, Knapp, and Stockinger.
— *See* Stöckl, Majdic, Kohl, Pickl, Menzel, and Knapp.
Kobayashi, M. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Koch, C. *See* Prager, Sunder-Plassmann, Hansmann, Koch, Holter, Knapp, and Stockinger.
Koch, F., Stanzl, U., Jennewein, P., Janke, K., Heufler, C., Kämpgen, E., Romani, N., and Schuler, G. High level IL-12 production by murine dendritic cells: upregulation via MHC class II and CD40 molecules and downregulation by IL-4 and IL-10. 741. Correction. 1591.
Kodama, H. *See* Takakura, Kodama, Nishikawa, and Nishikawa.
Koh, J.S. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.
Kohl, P. *See* Stöckl, Majdic, Kohl, Pickl, Menzel, and Knapp.
Köhler, G. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.
Kohler, H. *See* Falk, Biro, Kohler, and Eichmann.
Kohn, D.B. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Koizumi, T. *See* Wang, Koizumi, and Watanabe.
Kolb-Bachofen, V. *See* Bruch-Gerharz, Fehsel, Suschek, Michel, Ruzicka, and Kolb-Bachofen.
Kollars, M. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
Kollias, G. *See* Pasparakis, Alexopoulou, Episkopou, and Kollias.
Kong, Y.-c.M., Lomo, L.C., Motte, R.W., Giraldo, A.A., Baisch, J., Strauss, G., Hämmerling, G.J., and David, C.S. HLA-DRB1 polymorphism determines susceptibility to autoimmune thyroiditis in transgenic mice: definitive association with HLA-DRB1*0301 (DR3) gene. 1167.
Kopf, M., Brombacher, F., Köhler, G., Kienzle, G., Widmann, K.-H., Lefrang, K., Humborg, C., Ledermann, B., and Solbach, W. IL-4-deficient Balb/c mice resist infection with *Leishmania major*. 1127.
Kopf, M.A. *See* Sabin, Kopf, and Pearce.
Kosaka, H. *See* Kurts, Heath, Carbone, Allison, Miller, and Kosaka.
Kosco-Vilbois, M. *See* Martínez-Pomares, Kosco-Vilbois, Darley, Tree, Herren, Bonnefoy, and Gordon.
Kosco-Vilbois, M.H. *See* Chvatchko, Kosco-Vilbois, Herren, Lefort, and Bonnefoy.
Kosek, J. *See* Liesenfeld, Kosek, Remington, and Suzuki.
Koster, F. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.
Koup, R. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Koup, R.A. *See* Moore and Koup.
Krahl, T. *See* Mueller, Krahl, and Sarvetnick.
Krämer, B. *See* Machleidt, Krämer, Adam, Neumann, Schütze, Wiegmann, and Krönke.
Kramer, D.R. *See* Harrison, Dempsey-Collier, Kramer, and Takahashi.
Krause, P.R. *See* Yoshikawa, Hill, Stanberry, Bourne, Kurawadwala, and Krause.
Kremer, L. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.
Krieger, N.R., Yin, D., and Fathman, C.G. $CD4^+$ but not $CD8^+$ cells are essential for allorejection. 2013.
Kroemer, G. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.
— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.
Krönke, M. *See* Machleidt, Krämer, Adam, Neumann, Schütze, Wiegmann, and Krönke.
Kuckelkorn, U. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.
Kufe, D. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Kühn, R. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.
— *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Kumar, S. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Kumar, V., Stellrecht, K., and Sercarz, E. Inactivation of T cell receptor peptide-specific CD4 regulatory T cells induces chronic experimental autoimmune encephalomyelitis (EAE). 1609.
Kunkel, S.L. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Kuno, K. *See* Hattori, Kawamoto, Fujimoto, Kuno, and Katsura.
Küppers, R. *See* Kanzler, Küppers, Hansmann, and Rajewsky.
Kuratsuji, T. *See* Tsunawaki, Kagara, Yoshikawa, Yoshida, Kuratsuji, and Namiki.
Kurawadwala, J.F. *See* Yoshikawa, Hill, Stanberry, Bourne, Kurawadwala, and Krause.
Kurosaki, T. *See* Takata and Kurosaki.
Kurts, C., Heath, W.R., Carbone, F.R., Allison, J., Miller, J.F.A.P., and Kosaka, H. Constitutive class I–restricted exogenous presentation of self antigens in vivo. 923.
Kusner, D.J., Hall, C.F., and Schlesinger, L.S. Activation of phospholipase D is tightly coupled to the phagocytosis of *Mycobacterium tuberculosis* or opsonized zymosan by human macrophages. 585.
Kutkoski, G.J. *See* Mizgerd, Meek, Kutkoski, Bullard, Beaudet, and Doerschuk.
Kwon-Chung, K.J. *See* Salas, Bennett, Kwon-Chung, Perfect, and Williamson.

L

Lacerda, J.F., Ladanyi, M., Louie, D.C., Fernandez, J.M., Papadopoulos, E.B., and O'Reilly, R.J. Human Epstein-Barr virus (EBV)-specific cytotoxic T lymphocytes home preferentially to and induce selective regressions of autologous EBV-induced B cell lymphoproliferations in xenografted C.B-17 *Scid/Scid* mice: Correction. 1199.

Ladanyi, M. *See* Lacerda, Ladanyi, Louie, Fernandez, Papadopoulos, and O'Reilly.

La Fleur, M., Underwood, J.L., Rappolee, D.A., and Werb, Z. Basement membrane and repair of injury to peripheral nerve: defining a potential role for macrophages, matrix metalloproteinases, and tissue inhibitor of metalloproteinases-1. 2311.

Lamm, W.J.E. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.

Lane, P. *See* Cella, Scheidegger, Palmer-Lehmann, Lane, Lanzavecchia, and Alber.

Lang, J., Jackson, M., Teyton, L., Brunmark, A., Kane, K., and Nemazee, D. B cells are exquisitely sensitive to central tolerance and receptor editing induced by ultralow affinity, membrane-bound antigen. 1685.

Lang, T. *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.

Langley, K.E. *See* Klimpel, Langley, Wypych, Abrams, Chopra, and Niesel.

Lanier, L.L. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.

— *See* D'Andrea, Chang, Phillips, and Lanier.

— *See* Fry, Lanier, and Weiss.

— *See* Valiante, Phillips, Lanier, and Parham.

Lantz, O. *See* Bendelac, Hunziker, and Lantz.

Lanzavecchia, A. *See* Cella, Scheidegger, Palmer-Lehmann, Lane, Lanzavecchia, and Alber.

Larenas, P.V. *See* Sornasse, Larenas, Davis, de Vries, and Yssel.

Larkin, S.W. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.

Larsen, S.L., Pedersen, L.Ø., Buus, S., and Stryhn, A. T cell responses affected by aminopeptidase N (CD13)-mediated trimming of major histocompatibility complex class II–bound peptides. 183. Correction. 2073.

Laude-Sharp, M. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.

Lavin, M.F. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.

Lawler, A. *See* Sechler, Lawler, Hartley, Morse, McCarty, Swofford, and Rosenberg.

Leach, M.W. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.

Lechner, K. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.

Leclercq, G., Debacker, V., De Smedt, M., and Plum, J. Differential effects of interleukin-15 and interleukin-2 on differentiation of bipotential T/natural killer progenitor cells. 325.

Ledbetter, J.A. *See* Liles, Kiener, Ledbetter, Aruffo, and Klebanoff.

Lederer, J.A., Perez, V.L., DesRoches, L., Kim, S.M., Abbas, A.K., and Lichtman, A.H. Cytokine transcriptional events during helper T cell subset differentiation. 397.

Ledermann, B. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.

Lee, B.J. *See* Boussiotis, Barber, Lee, Gribben, Freeman, and Nadler.

Lee, C. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.

Lee, D.J. *See* Corr, Lee, Carson, and Tighe.

Lee, E. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.

Lee, J.-H. *See* Hodgkin, Lee, and Lyons.

Lee, S.P. *See* Steven, Leese, Annels, Lee, and Rickinson.

Lee, S.-W., and Sullenger, B.A. Isolation of a nuclease-resistant decoy RNA that selectively blocks autoantibody binding to insulin receptors on human lymphocytes. 315.

Lees, E. *See* Solvason, Wu, Kabra, Wu, Lees, and Howard.

Leese, A.M. *See* Steven, Leese, Annels, Lee, and Rickinson.

Lees-Miller, S.P. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.

Lefort, J. *See* Chvatchko, Kosco-Vilbois, Herren, Lefort, and Bonnefoy.

Lefrang, K. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.

Leggatt, G.R. *See* Alexander-Miller, Leggatt, Sarin, and Berzofsky.

Leimer, M. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.

Leiter, E.H. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.

Lemckert, F.A. *See* Ford, Foulcher, Lemckert, and Sedgwick.

Lemieux, S. *See* Brennan, Lemieux, Freeman, Mager, and Takei.

Lencer, W.I. *See* Frey, Giannasca, Weltzin, Giannasca, Reggio, Lencer, and Neutra.

Lenig, D. *See* Garcia-Sanz and Lenig.

Leo, O. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.

Lerch, P.G. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.

Lespagnard, L. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.

Lesslauer, W. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.

Letterio, J.J. *See* Borkowski, Letterio, Farr, and Udey.

Leung, B.P. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kinninmonth, Weidner, Mumford, and Liew.

Leusen, J.H.W., de Klein, A., Hilarius, P.M., Åhlin, A., Palmblad, J., Smith, C.I.E., Diekmann, D., Hall, A., Verhoeven, A.J., and Roos, D. Disturbed interaction of p21-*rac* with mutated p67-*phox* causes chronic granulomatous disease. 1243.

Levin, S.D. *See* Hashimoto, Sohn, Levin, Tada, Perlmutter, and Nakayama.

Levine, E.H. *See* Reis e Sousa, Levine, and Germain.

Levine, J.S. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.

Lewis, D.B. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.

— *See* Zhang, Rogers, and Lewis.

Li, C.-L. *See* Wu, Li, and Shortman.

Li, X. *See* Lorenz, Bergemann, Steinberg, Flanagan, Li, Galli, and Neel.

Li, Z. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.

Liao, L., Marinescu, A., Molano, A., Ciurli, C., Sekaly, R.-P., Fraser, J.D., Popowicz, A., and Posnett, D.N. TCR binding differs for a bacterial superantigen (SEE) and a viral superantigen (Mtv-9). 1471.

Lichtman, A.H. *See* Lederer, Perez, DesRoches, Kim, Abbas, and Lichtman.

Lieberman, J. *See* Decker, Shankar, Khan, Freeman, Dezube, Lieberman, and Thorley-Lawson.

Liesenfeld, O., Kosek, J., Remington, J.S., and Suzuki, Y. Association of $CD4^+$ T cell–dependent, interferon-γ-mediated necrosis of the small intestine with genetic susceptibility of mice to peroral infection with *Toxoplasma gondii*. 597.

Liew, F.Y. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kinninmonth, Weidner, Mumford, and Liew.

Liles, W.C., Kiener, P.A., Ledbetter, J.A., Aruffo, A., and Klebanoff, S.J. Differential expression of Fas (CD95) and Fas ligand on normal human phagocytes: implications for the regulation of apoptosis in neutrophils. 429.

Lim, A. *See* Biancone, Bowen, Lim, Aruffo, Andres, and Stamenkovic.

— *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.

Link, H. *See* Zhang, Xiao, Bakhiet, van der Meide, Wigzell, Link, and Olsson.

Linsley, P.S. *See* Wagner, Hagman, Linsley, Hodsdon, Freed, and Newell.

Linton, P.-J., Haynes, L., Klinman, N.R., and Swain, S.L. Antigen-independent changes in naive CD4 T cells with aging. 1891.

Lippa, C.F. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.

Lipps, S.G. *See* Todd, Lipps, Crisa, Salomon, and Tsoukas.

Litton, M.J. *See* Roth, Corry, Locksley, Abrams, Litton, and Fisher.
Litwack, G. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Liu, C.-C. *See* Ye, Zheng, Young, and Liu.
Liu, C.-P., Kappler, J.W., and Marrack, P. Thymocytes can become mature T cells without passing through the $CD4^+CD8^+$, double-positive stage. 1619.
Liu, Y. *See* Guo, Wu, Shinde, Sy, Aruffo, and Liu.
Liu, Y.-J., and Banchereau, J. Mutant mice without B lymphocyte follicles. 1207.
Livák, F., Welsh, S.C., Guidos, C.J., Crispe, I.N., Danska, J.S., and Schatz, D.G. Transient restoration of gene rearrangement at multiple T cell receptor loci in γ-irradiated *scid* mice. 419.
Lloberas, J. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
Lloyd, C. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.
Locht, C. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.
Locksley, R.M. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.
— *See* Roth, Corry, Locksley, Abrams, Litton, and Fisher.
Loetscher, H. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Loetscher, M., Gerber, B., Loetscher, P., Jones, S.A., Piali, L., Clark-Lewis, I., Baggiolini, M., and Moser, B. Chemokine receptor specific for IP10 and Mig: structure, function, and expression in activated T-lymphocytes. 963.
Loetscher, P., Seitz, M., Baggiolini, M., and Moser, B. Interleukin-2 regulates CC chemokine receptor expression and chemotactic responsiveness in T lymphocytes. 569.
— *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.
Loftus, D.J., Castelli, C., Clay, T.M., Squarcina, P., Marincola, F.M., Nishimura, M.I., Parmiani, G., Appella, E., and Rivoltini, L. Identification of epitope mimics recognized by CTL reactive to the melanoma/melanocyte-derived peptide $MART\text{-}1_{(27\text{–}35)}$. 647.
Loh, D.Y. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
Lomo, L.C. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.
Long, A. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Long, E.O. *See* Peruzzi, Wagtmann, and Long.
López, R. *See* Arrecubieta, López, and García.
Lopez-Botet, M. *See* Campbell, Dessing, Lopez-Botet, Cella, and Colonna.
Lorenz, U., Bergemann, A.D., Steinberg, H.N., Flanagan, J.G., Li, X., Galli, S.J., and Neel, B.G. Genetic analysis reveals cell type-specific regulation of receptor tyrosine kinase c-Kit by the protein tyrosine phosphatase SHP1. 1111.
Louie, D.C. *See* Lacerda, Ladanyi, Louie, Fernandez, Papadopoulos, and O'Reilly.
Love, P.E. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.
Lowry, S.F. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Lu, H. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Lu, L. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.
Lu, M.-M. *See* Su, Ip, Cobb, Lu, Chen, and Simon.
Lucas, K. *See* Saunders, Lucas, Ismaili, Wu, Maraskovsky, Dunn, and Shortman.
Lucia, M.S. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Luescher, I.F. *See* Renard, Romero, Vivier, Malissen, and Luescher.
Luo, C., Burgeon, E., and Rao, A. Mechanisms of transactivation by nuclear factor of activated T cells-1. 141.
Luster, A.D. *See* MacLean, Ownbey, and Luster.
Lutz, W.K. *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Luz, A. *See* Neumann, Luz, Pfeffer, and Holzmann.
Lyman, S.D. *See* Maraskovsky, Brasel, Teepe, Roux, Lyman, Shortman, and McKenna.
Lynch, D. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.
Lyons, A.B. *See* Hodgkin, Lee, and Lyons.

M

Ma, M. *See* Sylvestre, Clynes, Ma, Warren, Carroll, and Ravetch.
Machleidt, T., Krämer, B., Adam, D., Neumann, B., Schütze, S., Wiegmann, K., and Krönke, M. Function of the p55 tumor necrosis factor receptor "death domain" mediated by phosphatidylcholine-specific phospholipase C. 725.
Macho, A. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.
— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.
Machold, R.P., and Ploegh, H.L. Intermediates in the assembly and degradation of class I major histocompatibility complex (MHC) molecules probed with free heavy chain–specific monoclonal antibodies. 2251.
Mackay, C.R. Chemokine receptors and T cell chemotaxis. 799.
Mackay, F. *See* Rennert, Browning, Mebius, Mackay, and Hochman.
MacLean, J.A., Ownbey, R., and Luster, A.D. T cell–dependent regulation of eotaxin in antigen-induced pulmonary eosinophila. 1461.
Mage, R.G. *See* Pospisil, Fitts, and Mage.
Mager, D.L. *See* Brennan, Lemieux, Freeman, Mager, and Takei.
Majdic, O. *See* Stöckl, Majdic, Kohl, Pickl, Menzel, and Knapp.
Mak, T.W. *See* Duncan, Mittrücker, Kägi, Matsuyama, and Mak.
Maki, K., Sunaga, S., and Ikuta, K. The V–J recombination of T cell receptor-γ genes is blocked in interleukin-7 receptor–deficient mice. 2423.
— *See* Kanamori, Ishimaru, Nanno, Maki, Ikuta, Nariuchi, and Ishikawa.
Maki, R.A. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
Malcherek, G. *See* van Ham, Grüneberg, Malcherek, Bröker, Melms, and Trowsdale.
Malek, T.R. *See* He and Malek.
Malissen, B. *See* Renard, Romero, Vivier, Malissen, and Luescher.
Mandelboim, O., Reyburn, H.T., Valés-Gómez, M., Pazmany, L., Colonna, M., Borsellino, G., and Strominger, J.L. Protection from lysis by natural killer cells of group 1 and 2 specificity is mediated by residue 80 in human histocompatibility leukocyte antigen C alleles and also occurs with empty major histocompatibility complex molecules. 913.
Manyenga, D. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
Maraskovsky, E., Brasel, K., Teepe, M., Roux, E.R., Lyman, S.D., Shortman, K., and McKenna, H.J. Dramatic increase in the numbers of functionally mature dendritic cells in Flt3 ligand-treated mice: multiple dendritic cell subpopulations identified. 1953.
— *See* Saunders, Lucas, Ismaili, Wu, Maraskovsky, Dunn, and Shortman.
Marchetti, P., Castedo, M., Susin, S.A., Zamzami, N., Hirsch, T., Macho, A., Haeffner, A., Hirsch, F., Geuskens, M., and Kroemer, G. Mitochondrial permeability transition is a central coordinating event of apoptosis. 1155.
— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.
Margulies, D.H. *See* Plaksin, Chacko, McPhie, Bax, Padlan, and Margulies.
Marincola, F.M. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.
Marinescu, A. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.

Maroder, M. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Marquardt, H. *See* Blake, Johnston, Hellström, Marquardt, and Chen.
Márquez, C. *See* Ramiro, Trigueros, Márquez, San Millán, and Toribio.
Marrack, P. *See* Liu, Kappler, and Marrack.
Marsh, A.M. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Marshall, P., Hasegawa, A., Davidson, E.A., Nussenzweig, V., and Whitlow, M. Interaction between complement proteins C5b-7 and erythrocyte membrane sialic acid. 1225.
Martin, S.J. *See* Casiano, Martin, Green, and Tan.
Martinez-A, C. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.
Martínez-Pomares, L., Kosco-Vilbois, M., Darley, E., Tree, P., Herren, S., Bonnefoy, J.-Y., and Gordon, S. Fc chimeric protein containing the cysteine-rich domain of the murine mannose receptor binds to macrophages from splenic marginal zone and lymph node subcapsular sinus and to germinal centers. 1927.
Marvel, J. *See* Pihlgren, Dubois, Tomkowiak, Sjögren, and Marvel.
Marx, J.J.M. *See* Santos, Schilham, Rademakers, Marx, de Sousa, and Clevers.
Masferrer, J.L. *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Mason, D. *See* Saoudi, Seddon, Fowell, and Mason.
Mason, L.H., Anderson, S.K., Yokoyama, W.M., Smith, H.R.C., Winkler-Pickett, R., and Ortaldo, J.R. The Ly-49D receptor activates murine natural killer cells. 2119.
Massacrier, C. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
Matsuura, K. *See* Rodriguez, Matsuura, Ody, Nagata, and Vassalli.
Matsuyama, T. *See* Duncan, Mittrücker, Kägi, Matsuyama, and Mak.
Maxwell, E. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
McAdam, S. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
McCarty, T.C. *See* Sechler, Lawler, Hartley, Morse, McCarty, Swofford, and Rosenberg.
McCluskey, J. *See* Reynolds, Gordon, Purcell, Jackson, and McCluskey.
McConnell, H.M. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
McDonald, M.I. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
McEver, R.P. *See* Yao, Pan, Setiadi, Patel, and McEver.
McInnes, I.B., Leung, B.P., Field, M., Wei, X.Q., Huang, F.-P., Sturrock, R.D., Kinninmonth, A., Weidner, J., Mumford, R., and Liew, F.Y. Production of nitric oxide in the synovial membrane of rheumatoid and osteoarthritis patients. 1519.
McKeever, U., Khandekar, S., Newcomb, J., Naylor, J., Gregory, P., Brauer, P., Jesson, M., Bettencourt, B., Burke, E., Alderson, A., Banerji, J., Haskins, K., and Jones, B. Immunization with soluble BDC 2.5 T cell receptor-immunoglobulin chimeric protein: antibody specificity and protection of nonobese diabetic mice against adoptive transfer of diabetes by maternal immunization. 1755.
McKenna, H.J. *See* Maraskovsky, Brasel, Teepe, Roux, Lyman, Shortman, and McKenna.
McKercher, S. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
McMichael, A.J. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
McPhie, P. *See* Plaksin, Chacko, McPhie, Bax, Padlan, and Margulies.
McWilliam, A.S., Napoli, S., Marsh, A.M., Pemper, F.L., Nelson, D.J., Pimm, C.L., Stumbles, P.A., Wells, T.N.C., and Holt, P.G. Dendritic cells are recruited into the airway epithelium during the inflammatory response to a broad spectrum of stimuli. 2429.
Mebius, R. *See* Rennert, Browning, Mebius, Mackay, and Hochman.
Meek, B.B. *See* Mizgerd, Meek, Kutkoski, Bullard, Beaudet, and Doerschuk.
Melchers, F. *See* Ghia, ten Boekel, Sanz, de la Hera, Rolink, and Melchers.
— *See* Reininger, Winkler, Kalberer, Jourdan, Melchers, and Rolink.
Melief, C.J.M. *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Mellor, A.L. *See* Schulz and Mellor.
Melms, A. *See* van Ham, Grüneberg, Malcherek, Bröker, Melms, and Trowsdale.
Menonna, J. *See* Dowling, Shang, Raval, Menonna, Cook, and Husar.
Menozzi, F.D., Rouse, J.H., Alavi, M., Laude-Sharp, M., Muller, J., Bischoff, R., Brennan, M.J., and Locht, C. Identification of a heparin-binding hemagglutinin present in mycobacteria. 993.
Menz, G. *See* Crameri, Faith, Hemmann, Jaussi, Ismail, Menz, and Blaser.
Menzel, J.E. *See* Stöckl, Majdic, Kohl, Pickl, Menzel, and Knapp.
Meyer, R.G. *See* Sprenger, Meyer, Kaufmann, Bußfeld, Rischkowsky, and Gemsa.
Micheel, B. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.
Michel, F. *See* Tuosto, Michel, and Acuto.
Michel, G. *See* Bruch-Gerharz, Fehsel, Suschek, Michel, Ruzicka, and Kolb-Bachofen.
Mikheeva, T. *See* Bennett, Zatsepina, Zamai, Azzoni, Mikheeva, and Perussia.
Miller, J.F.A.P. *See* Kurts, Heath, Carbone, Allison, Miller, and Kosaka.
Miller, L.H. *See* Chitnis, Chaudhuri, Horuk, Pogo, and Miller.
Miller, S.D. *See* Karandikar, Vanderlugt, Walunas, Miller, and Bluestone.
Min, W. *See* Karmann, Min, Fanslow, and Pober.
Mine, S. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Minegishi, M., Tachibana, K., Sato, T., Iwata, S., Nojima, Y., and Morimoto, C. Structure and function of Cas-L, a 105-kD Crk-associated substrate-related protein that is involved in β1 integrin–mediated signaling in lymphocytes. 1365.
Misko, I.S. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.
Misukonis, M.A. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
— *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.
Mitchell, E.K. *See* Suh, Mitchell, Yang, Peterson, Waneck, and Williams.
Mittel, A. *See* Chappel, Hough, Mittel, Takei, Kay, and Humphries.
Mittrücker, H.-W. *See* Duncan, Mittrücker, Kägi, Matsuyama, and Mak.
Miura, Y. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Mix, D., and Winslow, G.M. Proteolytic processing activates a viral superantigen. 1549.
Miyaji, C. *See* Watanabe, Miyaji, Seki, and Abo.
Miyake, K. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Mizgerd, J.P., Meek, B.B., Kutkoski, G.J., Bullard, D.C., Beaudet, A.L., and Doerschuk, C.M. Selectins and neutrophil traffic: margination and *Streptococcus pneumoniae*-induced emigration in murine lungs. 639.
Mizoguchi, A., Mizoguchi, E., Chiba, C., and Bhan, A.K. Role of appendix in the development of inflammatory bowel disease in TCR-α mutant mice. 707.
Mizoguchi, E. *See* Mizoguchi, Mizoguchi, Chiba, and Bhan.
Mizuno, K., Katagiri, T., Hasegawa, K., Ogimoto, M., and Yakura, H. Hematopoietic cell phosphatase, SHP-1, is constitutively associated with the SH2 domain-containing leukocyte protein, SLP-76, in B cells. 457.
Mlinaric-Rascan, I. *See* Pani, Fischer, Mlinaric-Rascan, and Siminovitch.
Modesti, A. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Mojsov, S. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.

Molano, A. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.
Moldawer, L.L. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Mollenauer, M.N. *See* Shapiro, Mollenauer, Greene, and Weiss.
Moore, J.P., and Koup, R.A. Chemoattractants attract HIV researchers. 311.
Moore, M.W. *See* Broxmeyer, Cooper, Cacalano, Hague, Bailish, and Moore.
Moorman, M.A. *See* Snapper, Rosas, Zelazowski, Moorman, Kehry, Bravo, and Weih.
Morawetz, R.A., Gabriele, L., Rizzo, L.V., Noben-Trauth, N., Kühn, R., Rajewsky, K., Müller, W., Doherty, T.M., Finkelman, F., Coffman, R.L., and Morse, H.C., III. Interleukin (IL)-4–independent immunoglobulin class switch to immunoglobulin (Ig)E in the mouse. 1651.
Moreau-Aubry, A. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Moretta, A. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Moretta, L. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Morimoto, C. *See* Minegishi, Tachibana, Sato, Iwata, Nojima, and Morimoto.
Morimoto, I. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Morita, A. *See* Tsujimura, Takahashi, Morita, Hasegawa-Nishiwaki, Iwase, and Obata.
Morris, J. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Morris, S.B. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Morse, H.C., III. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
— *See* Sechler, Lawler, Hartley, Morse, McCarty, Swofford, and Rosenberg.
Moser, B. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
— *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.
— *See* Loetscher, Seitz, Baggiolini, and Moser.
Moser, M. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.
Moskowitz, N.H. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.
— *See* Brown, Green, Moskowitz, Davis, Thompson, and Reiner.
Mosmann, T.R. *See* Sad, Kägi, and Mosmann.
Moss, D.J. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.
— *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Motte, R.W. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.
Muegge, K. *See* Candéias, Muegge, and Durum.
Mueller, R., Krahl, T., and Sarvetnick, N. Pancreatic expression of interleukin-4 abrogates insulitis and autoimmune diabetes in nonobese diabetic (NOD) mice. 1093.
Muller, J. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.
Müller, W. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.
— *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Müller-Esterl, W. *See* Herwald, Collin, Müller-Esterl, and Björck.
Mumford, R. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kinninmonth, Weidner, Mumford, and Liew.
— *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Muraille, E. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.
Muraoka, K. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Musiani, P. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Mwaikambo, E.D. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.

N

Nadler, L.M. *See* Boussiotis, Barber, Lee, Gribben, Freeman, and Nadler.
Nagata, S. *See* Rodriguez, Matsuura, Ody, Nagata, and Vassalli.
— *See* Silvestris, Nagata, Cafforio, Silvestris, and Dammacco.
— *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Nair, S.K. *See* Boczkowski, Nair, Snyder, and Gilboa.
Nakahata, T. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Nakayama, T. *See* Hashimoto, Sohn, Levin, Tada, Perlmutter, and Nakayama.
Namiki, H. *See* Tsunawaki, Kagara, Yoshikawa, Yoshida, Kuratsuji, and Namiki.
Nanda, N.K., and Sercarz, E. A truncated T cell receptor repertoire reveals underlying immunogenicity of an antigenic determinant. 1037.
Nanno, M. *See* Kanamori, Ishimaru, Nanno, Maki, Ikuta, Nariuchi, and Ishikawa.
Napoli, S. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Nariuchi, H. *See* Kanamori, Ishimaru, Nanno, Maki, Ikuta, Nariuchi, and Ishikawa.
Nathan, C. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Nauck, M. *See* Roth, Nauck, Yousefi, Tamm, Blaser, Perruchoud, and Simon.
Naylor, J. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Neben, S. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Neel, B.G. *See* Lorenz, Bergemann, Steinberg, Flanagan, Li, Galli, and Neel.
Negishi, I. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
Nelson, D.J. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Nemazee, D. *See* Lang, Jackson, Teyton, Brunmark, Kane, and Nemazee.
Neumann, B., Luz, A., Pfeffer, K., and Holzmann, B. Defective Peyer's patch organogenesis in mice lacking the 55-kD receptor for tumor necrosis factor. 259.
— *See* Machleidt, Krämer, Adam, Neumann, Schütze, Wiegmann, and Krönke.
Neutra, M.R. *See* Frey, Giannasca, Weltzin, Giannasca, Reggio, Lencer, and Neutra.
Newcomb, J. *See* McKeever, Khandekar, Newcomb, Naylor, Gregory, Brauer, Jesson, Bettencourt, Burke, Alderson, Banerji, Haskins, and Jones.
Newell, M.K. *See* Wagner, Hagman, Linsley, Hodsdon, Freed, and Newell.
Ni, D. *See* Hannum, Ni, Haberman, Weigert, and Shlomchik.
Nicolò, C. *See* Sallusto, Nicolò, De Maria, Corinti, and Testi.
Niesel, D.W. *See* Klimpel, Langley, Wypych, Abrams, Chopra, and Niesel.
Nikolić-Žugić, J. *See* Dyall, Fremont, Jameson, and Nikolić-Žugić.
Nishikawa, S. *See* Takakura, Kodama, Nishikawa, and Nishikawa.
Nishikawa, S.-I. *See* Takakura, Kodama, Nishikawa, and Nishikawa.
Nishimura, M.I. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.

Noben-Trauth, N. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Nojima, Y. *See* Minegishi, Tachibana, Sato, Iwata, Nojima, and Morimoto.
Nomura, J. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Nourshargh, S. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.
Nussenzweig, M.C. *See* Gong, Sanchez, and Nussenzweig.
— *See* Papavasiliou, Jankovic, and Nussenzweig.
Nussenzweig, V. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.
— *See* Marshall, Hasegawa, Davidson, Nussenzweig, and Whitlow.
— *See* Sinnis, Willnow, Briones, Herz, and Nussenzweig.

O

Obata, Y. *See* Tsujimura, Takahashi, Morita, Hasegawa-Nishiwaki, Iwase, and Obata.
O'Callaghan, C.A. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
O'Connell, J., O'Sullivan, G.C., Collins, J.K., and Shanahan, F. The Fas counterattack: Fas-mediated T cell killing by colon cancer cells expressing Fas ligand. 1075.
O'Connell, M.J., Chua, R., Hoyos, B., Buck, J., Chen, Y., Derguini, F., and Hämmerling, U. *Retro*-retinoids in regulated cell growth and death. 549.
O'Doherty, U. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Ody, C. *See* Rodriguez, Matsuura, Ody, Nagata, and Vassalli.
Ogimoto, M. *See* Mizuno, Katagiri, Hasegawa, Ogimoto, and Yakura.
Öhler, L. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
Ojcius, D.M. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
Oldstone, M.B.A. *See* Evans, Horwitz, Hobbs, and Oldstone.
Olsson, T. *See* Zhang, Xiao, Bakhiet, van der Meide, Wigzell, Link, and Olsson.
Ono, S. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
O'Reilly, R.J. *See* Lacerda, Ladanyi, Louie, Fernandez, Papadopoulos, and O'Reilly.
Ortaldo, J.R. *See* Mason, Anderson, Yokoyama, Smith, Winkler-Pickett, and Ortaldo.
Osnes, L. *See* Brandtzaeg, Osnes, Øvstebø, Joø, Westvik, and Kierulf.
Ossendorp, F. *See* Gravestein, van Ewijk, Ossendorp, and Borst.
— *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
O'Sullivan, G.C. *See* O'Connell, O'Sullivan, Collins, and Shanahan.
Ota, Y., Beitz, L.O., Scharenberg, A.M., Donovan, J.A., Kinet, J.-P., and Samelson, L.E. Characterization of Cbl tyrosine phosphorylation and a Cbl-Syk complex in RBL-2H3 cells. 1713.
Øvstebø, R. *See* Brandtzaeg, Osnes, Øvstebø, Joø, Westvik, and Kierulf.
Owen, M.J. *See* Szczepanik, Anderson, Ushio, Ptak, Owen, Hayday, and Askenase.
— *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Ownbey, R. *See* MacLean, Ownbey, and Luster.

P

Padlan, E.A. *See* Plaksin, Chacko, McPhie, Bax, Padlan, and Margulies.
Pajak, B. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.
Pajkrt, D., Doran, J.E., Koster, F., Lerch, P.G., Arnet, B., van der Poll, T., ten Cate, J.W., and van Deventer, S.J.H. Anti-inflammatory effects of reconstituted high-density lipoprotein during human endotoxemia. 1601.
Palkama, T. *See* Sutkowski, Palkama, Ciurli, Sekaly, Thorley-Lawson, and Huber.
Palmblad, J. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Palmer-Lehmann, K. *See* Cella, Scheidegger, Palmer-Lehmann, Lane, Lanzavecchia, and Alber.
Pan, J. *See* Yao, Pan, Setiadi, Patel, and McEver.
Pandey, P. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Pani, G., Fischer, K.-D., Mlinaric-Rascan, I., and Siminovitch, K.A. Signaling capacity of the T cell antigen receptor is negatively regulated by the PTP1C tyrosine phosphatase. 839.
Pao, W. *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Papadopoulos, E.B. *See* Lacerda, Ladanyi, Louie, Fernandez, Papadopoulos, and O'Reilly.
Papavasiliou, F., Jankovic, M., and Nussenzweig, M.C. Surrogate or conventional light chains are required for membrane immunoglobulin mu to activate the precursor B cell transition. 2025.
Papavassilis, C. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.
Parekh, R.B. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
Parham, P. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
— *See* Valiante, Phillips, Lanier, and Parham.
Parkos, C.A. *See* Colgan, Dzus, and Parkos.
Parmiani, G. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.
Pasparakis, M., Alexopoulou, L., Episkopou, V., and Kollias, G. Immune and inflammatory responses in TNFα-deficient mice: a critical requirement for TNFα in the formation of primary B cell follicles, follicular dendritic cell networks and germinal centers, and in the maturation of the humoral immune response. 1397.
Patel, K.D. *See* Yao, Pan, Setiadi, Patel, and McEver.
Paxton, W. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Pazmany, L. *See* Mandelboim, Reyburn, Valés-Gómez, Pazmany, Colonna, Borsellino, and Strominger.
Pearce, E.J. *See* Sabin, Kopf, and Pearce.
Pease, L.R. *See* Tallquist, Yun, and Pease.
Pedersen, L.Ø. *See* Larsen, Pedersen, Buus, and Stryhn.
Pemper, F.L. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Pende, D., Biassoni, R., Cantoni, C., Verdiani, S., Falco, M., Di Donato, C., Accame, L., Bottino, C., Moretta, A., and Moretta, L. The natural killer cell receptor specific for HLA-A allotypes: a novel member of the p58/p70 family of inhibitory receptors that is characterized by three immunoglobulin-like domains and is expressed as a 140-kD disulphide-linked dimer. 505.
Peng, Q. *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Peng, S.L., Robert, M.E., Hayday, A.C., and Craft, J. A tumor-suppressor function for Fas (CD95) revealed in T cell–deficient mice. 1149.
Penner, I.R. *See* Hara, Toyoda, Yaar, Bhawan, Avila, Penner, and Gilchrest.
Penrose, J.F. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Sali, and Gurish.
Percival, L. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
Perez, V.L. *See* Lederer, Perez, DesRoches, Kim, Abbas, and Lichtman.
Perfect, J.R. *See* Salas, Bennett, Kwon-Chung, Perfect, and Williamson.
Perlmutter, R.M. *See* Alberola-Ila, Hogquist, Swan, Bevan, and Perlmutter.
— *See* Hashimoto, Sohn, Levin, Tada, Perlmutter, and Nakayama.
Perruchoud, A.P. *See* Roth, Nauck, Yousefi, Tamm, Blaser, Perruchoud, and Simon.
Perussia, B. *See* Bennett, Zatsepina, Zamai, Azzoni, Mikheeva, and Perussia.
— *See* Trotta, Kanakaraj, and Perussia.

Peruzzi, M., Wagtmann, N., and Long, E.O. A p70 killer cell inhibitory receptor specific for several HLA-B allotypes discriminates among peptides bound to HLA-B*2705. 1585.
Peters, M.F. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.
Peterson, P.A. *See* Kishimoto, Cai, Brunmark, Jackson, Peterson, and Sprent.
— *See* Suh, Mitchell, Yang, Peterson, Waneck, and Williams.
Peyrat, M.-A. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Pfeffer, K. *See* Neumann, Luz, Pfeffer, and Holzmann.
Phillips, J.H. *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
— *See* D'Andrea, Chang, Phillips, and Lanier.
— *See* Valiante, Phillips, Lanier, and Parham.
Piali, L. *See* Loetscher, Gerber, Loetscher, Jones, Piali, Clark-Lewis, Baggiolini, and Moser.
Picarella, D.E. *See* Grewal, Grewal, Wong, Picarella, Janeway, and Flavell.
Pickl, W.F. *See* Stöckl, Majdic, Kohl, Pickl, Menzel, and Knapp.
Pihlgren, M., Dubois, P.M., Tomkowiak, M., Sjögren, T., and Marvel, J. Resting memory $CD8^+$ T cells are hyperreactive to antigenic challenge in vitro. 2141.
Pimm, C.L. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Pinczon, D. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Pisetsky, D.S. *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.
Plaksin, D., Chacko, S., McPhie, P., Bax, A., Padlan, E.A., and Margulies, D.H. A T cell receptor Vα domain expressed in bacteria: does it dimerize in solution? 1251.
Ploegh, H.L. *See* Machold and Ploegh.
Plum, J. *See* Leclercq, Debacker, De Smedt, and Plum.
Pober, J.S. *See* Karmann, Min, Fanslow, and Pober.
Pogo, A.O. *See* Chitnis, Chaudhuri, Horuk, Pogo, and Miller.
Poli, V. *See* Screpanti, Musiani, Bellavia, Cappelletti, Aiello, Maroder, Frati, Modesti, Gulino, and Poli.
Polverini, P.J. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Pope, M. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Popowicz, A. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.
Portanova, J.P., Zhang, Y., Anderson, G.D., Hauser, S.D., Masferrer, J.L., Seibert, K., Gregory, S.A., and Isakson, P.C. Selective neutralization of prostaglandin E_2 blocks inflammation, hyperalgesia, and interleukin 6 production in vivo. 883.
Posnett, D.N. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.
Pospisil, R., Fitts, M.G., and Mage, R.G. CD5 is a potential selecting ligand for B cell surface immunoglobulin framework region sequences. 1279.
Potter, T.A. *See* Shen, Potter, and Kane.
Prager, E., Sunder-Plassmann, R., Hansmann, C., Koch, C., Holter, W., Knapp, W., and Stockinger, H. Interaction of CD31 with a heterophilic counterreceptor involved in downregulation of human T cell responses. 41.
Presani, G. *See* Batista, Anand, Presani, Efremov, and Burrone.
Pruitt, J.H. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Ptak, W. *See* Szczepanik, Anderson, Ushio, Ptak, Owen, Hayday, and Askenase.
Punt, J.A., Suzuki, H., Granger, L.G., Sharrow, S.O., and Singer, A. Lineage commitment in the thymus: only the most differentiated ($TCR^{hi}bcl\text{-}2^{hi}$) subset of $CD4^+CD8^+$ thymocytes has selectively terminated CD4 or CD8 synthesis. 2091.
— *See* Wu, Harley, Punt, Sharrow, and Kearse.
Purcell, A.W. *See* Reynolds, Gordon, Purcell, Jackson, and McCluskey.
Pye, S.J. *See* Silins, Cross, Elliott, Pye, Burrows, Burrows, Moss, Argaet, and Misko.

Q

Quinlan, C. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.

R

Rabinowitz, J. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
Rademakers, L.H.P.M. *See* Santos, Schilham, Rademakers, Marx, de Sousa, and Clevers.
Rafael, J.A. *See* Chao, Gorospe, Brenman, Rafael, Peters, Froehner, Hoffman, Chamberlain, and Bredt.
Raine, C.S. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.
Rajewsky, K. *See* Kanzler, Küppers, Hansmann, and Rajewsky.
— *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Ramalho-Pinto, F.J. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.
Ramiro, A.R., Trigueros, C., Márquez, C., San Millán, J.L., and Toribio, M.L. Regulation of pre-T cell receptor ($pT\alpha$-$TCR\beta$) gene expression during human thymic development. 519.
Rao, A. *See* Luo, Burgeon, and Rao.
Rappolee, D.A. *See* La Fleur, Underwood, Rappolee, and Werb.
Ratnofsky, S. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Rauch, J. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.
Raulet, D.H. *See* Held, Cado, and Raulet.
Raval, S. *See* Dowling, Shang, Raval, Menonna, Cook, and Husar.
Ravetch, J.V. *See* Sylvestre, Clynes, Ma, Warren, Carroll, and Ravetch.
Reggio, H. *See* Frey, Giannasca, Weltzin, Giannasca, Reggio, Lencer, and Neutra.
Reid, S.W., McAdam, S., Smith, K.J., Klenerman, P., O'Callaghan, C.A., Harlos, K., Jakobsen, B.K., McMichael, A.J., Bell, J.I., Stuart, D.I., and Jones, E.Y. Antagonist HIV-1 gag peptides induce structural changes in HLA B8. 2279.
Reifsnyder, P.C. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.
Reiner, S.L. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.
— *See* Brown, Green, Moskowitz, Davis, Thompson, and Reiner.
Reininger, L., Winkler, T.H., Kalberer, C.P., Jourdan, M., Melchers, F., and Rolink, A.G. Intrinsic B cell defects in NZB and NZW mice contribute to systemic lupus erythematosus in (NZB × NZW)F1 mice. 853.
Reis e Sousa, C., Levine, E.H., and Germain, R.N. Partial signaling by $CD8^+$ T cells in response to antagonist ligands. 149.
Remington, J.S. *See* Liesenfeld, Kosek, Remington, and Suzuki.
Renard, V., Romero, P., Vivier, E., Malissen, B., and Luescher, I.F. CD8β increases CD8 coreceptor function and participation in TCR–ligand binding. 2439.
Rennert, P.D., Browning, J.L., Mebius, R., Mackay, F., and Hochman, P.S. Surface lymphotoxin α/β complex is required for the development of peripheral lymphoid organs. 1999.
Rennick, D.M. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.
Reyburn, H.T. *See* Mandelboim, Reyburn, Valés-Gómez, Pazmany, Colonna, Borsellino, and Strominger.
Reynolds, P., Gordon, T.P., Purcell, A.W., Jackson, D.C., and McCluskey, J. Hierarchical self-tolerance to T cell determinants within the ubiquitous nuclear self-antigen La (SS-B) permits induction of systemic autoimmunity in normal mice. 1857.
Rice, P.A. *See* Erwin, Haynes, Rice, and Gotschlich.

Richard, S.D. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.
Rickinson, A.B. *See* Steven, Leese, Annels, Lee, and Rickinson.
Rischkowsky, E. *See* Sprenger, Meyer, Kaufmann, Bußfeld, Rischkowsky, and Gemsa.
Rivoltini, L. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.
Rizzo, L.V. *See* Morawetz, Gabriele, Rizzo, Noben-Trauth, Kühn, Rajewsky, Müller, Doherty, Finkelman, Coffman, and Morse.
Robert, M.E. *See* Peng, Robert, Hayday, and Craft.
Roberts, A.B. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Roberts, M.R. *See* Hege, Cooke, Finer, Zsebo, and Roberts.
Rodriguez, I., Matsuura, K., Ody, C., Nagata, S., and Vassalli, P. Systemic injection of a tripeptide inhibits the intracellular activation of CPP32-like proteases in vivo and fully protects mice against Fas-mediated fulminant liver destruction and death. 2067.
Roessner, K. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.
Rogers, K.H. *See* Zhang, Rogers, and Lewis.
Rogy, M. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
— *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Rolink, A. *See* Ghia, ten Boekel, Sanz, de la Hera, Rolink, and Melchers.
Rolink, A.G. *See* Reininger, Winkler, Kalberer, Jourdan, Melchers, and Rolink.
Romagnoli, P. *See* Zhong, Castellino, Romagnoli, and Germain.
Romani, N. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.
Romero, L.I. *See* Vora, Romero, and Karasek.
Romero, P. *See* Renard, Romero, Vivier, Malissen, and Luescher.
Roncarolo, M.-G. *See* Groux, Bigler, de Vries, and Roncarolo.
Rong, H. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
Roopenian, D.C. *See* Dudley and Roopenian.
Roos, D. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Rosas, F.R. *See* Snapper, Rosas, Zelazowski, Moorman, Kehry, Bravo, and Weih.
Rosen, S.D. *See* Hwang, Singer, Giblin, Yednock, Bacon, Simon, and Rosen.
Rosenberg, A.S. *See* Sechler, Lawler, Hartley, Morse, McCarty, Swofford, and Rosenberg.
Rosenberg, S.A. *See* Wang, Appella, Kawakami, Kang, and Rosenberg.
Rosenthal, K.L. *See* Gallichan and Rosenthal.
Rotello, R.J. *See* Friedlander, Gagliardini, Rotello, and Yuan.
Roth, C. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
Roth, I., Corry, D.B., Locksley, R.M., Abrams, J.S., Litton, M.J., and Fisher, S.J. Human placental cytotrophoblasts produce the immunosuppressive cytokine interleukin 10. 539.
Roth, M., Nauck, M., Yousefi, S., Tamm, M., Blaser, K., Perruchoud, A.P., and Simon, H.-U. Platelet-activating factor exerts mitogenic activity and stimulates expression of interleukin 6 and interleukin 8 in human lung fibroblasts via binding to its functional receptor. 191.
Rouse, J.H. *See* Menozzi, Rouse, Alavi, Laude-Sharp, Muller, Bischoff, Brennan, and Locht.
Roux, E.R. *See* Maraskovsky, Brasel, Teepe, Roux, Lyman, Shortman, and McKenna.
Ruzicka, T. *See* Bruch-Gerharz, Fehsel, Suschek, Michel, Ruzicka, and Kolb-Bachofen.

S

Sabin, E.A., Kopf, M.A., and Pearce, E.J. *Schistosoma mansoni* egg-induced early IL-4 production is dependent upon IL-5 and eosinophils. 1871.
Sad, S., Kägi, D., and Mosmann, T.R. Perforin and Fas killing by $CD8^+$ T cells limits their cytokine synthesis and proliferation. 1543.
Sakaguchi, N. *See* Asano, Toda, Sakaguchi, and Sakaguchi.
— *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Sakaguchi, S. *See* Asano, Toda, Sakaguchi, and Sakaguchi.
Sakurai, K. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Salas, S.D., Bennett, J.E., Kwon-Chung, K.J., Perfect, J.R., and Williamson, P.R. Effect of the laccase gene, *CNLAC1*, on virulence of *Cryptococcus neoformans*. 377.
Śali, A. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Šali, and Gurish.
Sallusto, F., Nicolò, C., De Maria, R., Corinti, S., and Testi, R. Ceramide inhibits antigen uptake and presentation by dendritic cells. 2411.
Salomon, D.R. *See* Crisa, Cirulli, Ellisman, Ishii, Elices, and Salomon.
— *See* Todd, Lipps, Crisa, Salomon, and Tsoukas.
Samelson, L.E. *See* Ota, Beitz, Scharenberg, Donovan, Kinet, and Samelson.
Sanchez, M. *See* Gong, Sanchez, and Nussenzweig.
Sanders, L. *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.
San Millán, J.L. *See* Ramiro, Trigueros, Márquez, San Millán, and Toribio.
Sant, A.J. *See* Katz, Stebbins, Appella, and Sant.
Santos, M., Schilham, M.W., Rademakers, L.H.P.M., Marx, J.J.M., de Sousa, M., and Clevers, H. Defective iron homeostasis in β2-microglobulin knockout mice recapitulates hereditary hemochromatosis in man. 1975.
Sanz, E. *See* Ghia, ten Boekel, Sanz, de la Hera, Rolink, and Melchers.
Sanz, M.-J. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.
Saoudi, A., Seddon, B., Fowell, D., and Mason, D. The thymus contains a high frequency of cells that prevent autoimmune diabetes on transfer into prediabetic recipients. 2393.
Sarawar, S.R. *See* Cardin, Brooks, Sarawar, and Doherty.
Sarin, A., Wu, M.-L., and Henkart, P.A. Different interleukin-1β converting enzyme (ICE) family protease requirements for the apoptotic death of T lymphocytes triggered by diverse stimuli. 2445.
— *See* Alexander-Miller, Leggatt, Sarin, and Berzofsky.
Sarvetnick, N. Mechanisms of cytokine-mediated localized immunoprotection. 1597.
— *See* Mueller, Krahl, and Sarvetnick.
Sato, T. *See* Minegishi, Tachibana, Sato, Iwata, Nojima, and Morimoto.
Saunders, D., Lucas, K., Ismaili, J., Wu, L., Maraskovsky, E., Dunn, A., and Shortman, K. Dendritic cell development in culture from thymic precursor cells in the absence of granulocyte/macrophage colony-stimulating factor. 2185.
Schall, T.J. *See* Bacon, Szabo, Yssel, Bolen, and Schall.
Scharenberg, A.M. *See* Ota, Beitz, Scharenberg, Donovan, Kinet, and Samelson.
Scharfstein, J. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.
Scharton-Kersten, T. *See* Denkers, Scharton-Kersten, Barbieri, Caspar, and Sher.
Schatz, D.G. *See* Lívák, Welsh, Guidos, Crispe, Danska, and Schatz.
Scheidegger, D. *See* Cella, Scheidegger, Palmer-Lehmann, Lane, Lanzavecchia, and Alber.
Schilham, M.W. *See* Santos, Schilham, Rademakers, Marx, de Sousa, and Clevers.
Schlesinger, L.S. *See* Kusner, Hall, and Schlesinger.
Schmidtke, G. *See* Feist, Dörner, Kuckelkorn, Schmidtke, Micheel, Hiepe, Burmester, and Kloetzel.
Schmitt, D. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
Schuler, G. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.
Schulz, R., and Mellor, A.L. Self major histocompatibility complex class I antigens expressed solely in lymphoid cells do not induce tolerance in the $CD4^+$ T cell compartment. 1573.

Schütze, S. *See* Machleidt, Krämer, Adam, Neumann, Schütze, Wiegmann, and Krönke.
Schwartz, R.H. Models of T cell anergy: is there a common molecular mechanism? 1.
Scotet, E., David-Ameline, J., Peyrat, M.-A., Moreau-Aubry, A., Pinczon, D., Lim, A., Even, J., Semana, G., Berthelot, J.-M., Breathnach, R., Bonneville, M., and Houssaint, E. T cell response to Epstein-Barr virus transactivators in chronic rheumatoid arthritis. 1791.
Screpanti, I., Musiani, P., Bellavia, D., Cappelletti, M., Aiello, F.B., Maroder, M., Frati, L., Modesti, A., Gulino, A., and Poli, V. Inactivation of the IL-6 gene prevents development of multicentric Castleman's disease in C/EBPβ-deficient mice. 1561.
Sechler, J.M.G., Lawler, A., Hartley, J.W., Morse, H.C., III, McCarty, T.C., Swofford, R., and Rosenberg, A.S. Induction of murine acquired immunodeficiency syndrome (MAIDS) in allophenic mice generated from strains susceptible and resistant to disease. 2101.
Seddon, B. *See* Saoudi, Seddon, Fowell, and Mason.
Sedgwick, J.D. *See* Ford, Foulcher, Lemckert, and Sedgwick.
Seeger, W. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.
Segal, B.M., and Shevach, E.M. IL-12 unmasks latent autoimmune disease in resistant mice. 771.
Seibert, K. *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Seitz, M. *See* Loetscher, Seitz, Baggiolini, and Moser.
Sekaly, R.-P. *See* Liao, Marinescu, Molano, Ciurli, Sekaly, Fraser, Popowicz, and Posnett.
— *See* Sutkowski, Palkama, Ciurli, Sekaly, Thorley-Lawson, and Huber.
Seki, S. *See* Watanabe, Miyaji, Seki, and Abo.
Semana, G. *See* Scotet, David-Ameline, Peyrat, Moreau-Aubry, Pinczon, Lim, Even, Semana, Berthelot, Breathnach, Bonneville, and Houssaint.
Sercarz, E. *See* Kumar, Stellrecht, and Sercarz.
— *See* Nanda and Sercarz.
Serreze, D.V., Chapman, H.D., Varnum, D.S., Hanson, M.S., Reifsnyder, P.C., Richard, S.D., Fleming, S.A., Leiter, E.H., and Shultz, L.D. B lymphocytes are essential for the initiation of T cell–mediated autoimmune diabetes: analysis of a new "speed congenic" stock of NOD.*Igμ*^{null} mice. 2049.
Setiadi, H. *See* Yao, Pan, Setiadi, Patel, and McEver.
Shakibaei, M., and Frevert, U. Dual interaction of the malaria circumsporozoite protein with the low density lipoprotein receptor-related protein (LRP) and heparan sulfate proteoglycans. 1699.
Shanahan, F. *See* O'Connell, O'Sullivan, Collins, and Shanahan.
Shang, G. *See* Dowling, Shang, Raval, Menonna, Cook, and Husar.
Shankar, P. *See* Decker, Shankar, Khan, Freeman, Dezube, Lieberman, and Thorley-Lawson.
Shapiro, V.S., Mollenauer, M.N., Greene, W.C., and Weiss, A. c-Rel regulation of IL-2 gene expression may be mediated through activation of AP-1. 1663.
Sharma, P. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
Sharrow, S.O. *See* Punt, Suzuki, Granger, Sharrow, and Singer.
— *See* Wu, Harley, Punt, Sharrow, and Kearse.
Shen, L., Potter, T.A., and Kane, K.P. Glu227 Lys substitution in the acidic loop of major histocompatibility complex class I α3 domain distinguishes low avidity CD8 coreceptor and avidity-enhanced CD8 accessory functions. 1671.
Sher, A. *See* Denkers, Scharton-Kersten, Barbieri, Caspar, and Sher.
Shevach, E.M. *See* Segal and Shevach.
Shia, M.A. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.
Shinde, S. *See* Guo, Wu, Shinde, Sy, Aruffo, and Liu.
Shlomchik, M.J. *See* Hannum, Ni, Haberman, Weigert, and Shlomchik.
Shores, E.W. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.
Shortman, K. *See* Maraskovsky, Brasel, Teepe, Roux, Lyman, Shortman, and McKenna.
— *See* Saunders, Lucas, Ismaili, Wu, Maraskovsky, Dunn, and Shortman.
— *See* Wu, Li, and Shortman.
Shultz, L.D. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.
Sibelius, U. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.
Siegelman, M.H. *See* Catalina, Carroll, Arizpe, Takashima, Estess, and Siegelman.
Sigal, L.H. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.
Silins, S.L., Cross, S.M., Elliott, S.L., Pye, S.J., Burrows, S.R., Burrows, J.M., Moss, D.J., Argaet, V.P., and Misko, I.S. Development of Epstein-Barr virus–specific memory T cell receptor clonotypes in acute infectious mononucleosis. 1815.
Silvestris, F., Nagata, S., Cafforio, P., Silvestris, N., and Dammacco, F. Cross-linking of Fas by antibodies to a peculiar domain of gp120 V3 loop can enhance T cell apoptosis in HIV-1–infected patients. 2287.
Silvestris, N. *See* Silvestris, Nagata, Cafforio, Silvestris, and Dammacco.
Siminovitch, K.A. *See* Pani, Fischer, Mlinaric-Rascan, and Siminovitch.
Simon, H.-U. *See* Roth, Nauck, Yousefi, Tamm, Blaser, Perruchoud, and Simon.
Simon, M.C. *See* Su, Ip, Cobb, Lu, Chen, and Simon.
Simon, S.I. *See* Hwang, Singer, Giblin, Yednock, Bacon, Simon, and Rosen.
Singer, A. *See* Punt, Suzuki, Granger, Sharrow, and Singer.
Singer, M.S. *See* Hwang, Singer, Giblin, Yednock, Bacon, Simon, and Rosen.
Sinnis, P., Willnow, T.E., Briones, M.R.S., Herz, J., and Nussenzweig, V. Remnant lipoproteins inhibit malaria sporozoite invasion of hepatocytes. 945.
Siraganian, R.P. *See* Zhang, Berenstein, Evans, and Siraganian.
Sjögren, T. *See* Pihlgren, Dubois, Tomkowiak, Sjögren, and Marvel.
Skoupy, S. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
Slayter, H.S. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.
Sloan-Lancaster, J., Steinberg, T.H., and Allen, P.M. Selective activation of the calcium signaling pathway by altered peptide ligands. 1525.
Smith, C.I.E. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Smith, G. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Smith, H.R.C. *See* Mason, Anderson, Yokoyama, Smith, Winkler-Pickett, and Ortaldo.
Smith, K.J. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.
Smith, S. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Smith, T.W. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Snapper, C.M., Rosas, F.R., Zelazowski, P., Moorman, M.A., Kehry, M.R., Bravo, R., and Weih, F. B cells lacking RelB are defective in proliferative responses, but undergo normal B cell maturation to Ig secretion and Ig class switching. 1537.
Snyder, D. *See* Boczkowski, Nair, Snyder, and Gilboa.
Sohn, S.J. *See* Hashimoto, Sohn, Levin, Tada, Perlmutter, and Nakayama.
Solbach, W. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.
Soler, C. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
Solvason, N., Wu, W.W., Kabra, N., Wu, X., Lees, E., and Howard, M.C. Induction of cell cycle regulatory proteins in anti-immunoglobulin–stimulated mature B lymphocytes. 407.
Song, Q., Burrows, S.R., Smith, G., Lees-Miller, S.P., Kumar, S., Chan, D.W., Trapani, J.A., Alnemri, E., Litwack, G., Lu, H., Moss, D.J., Jackson, S., and Lavin, M.F. Interleukin-1β-converting enzyme-like protease cleaves DNA-dependent protein kinase in cytotoxic T cell killing. 619.

Sornasse, T., Larenas, P.V., Davis, K.A., de Vries, J.E., and Yssel, H. Differentiation and stability of T helper 1 and 2 cells derived from naive human neonatal $CD4^+$ T cells, analyzed at the single-cell level. 473.

Sporn, M.B. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.

Sprenger, H., Meyer, R.G., Kaufmann, A., Bußfeld, D., Rischkowsky, E., and Gemsa, D. Selective induction of monocyte and not neutrophil-attracting chemokines after influenza A virus infection. 1191.

Sprent, J. *See* Kishimoto, Cai, Brunmark, Jackson, Peterson, and Sprent.

Springer, T.A. *See* Bleul, Fuhlbrigge, Casasnovas, Aiuti, and Springer.

Squarcina, P. *See* Loftus, Castelli, Clay, Squarcina, Marincola, Nishimura, Parmiani, Appella, and Rivoltini.

Stamenkovic, I. *See* Biancone, Bowen, Lim, Aruffo, Andres, and Stamenkovic.

Stanberry, L.R. *See* Yoshikawa, Hill, Stanberry, Bourne, Kurawadwala, and Krause.

Stanzl, U. *See* Koch, Stanzl, Jennewein, Janke, Heufler, Kämpgen, Romani, and Schuler.

St. Clair, E.W., Wilkinson, W.E., Lang, T., Sanders, L., Misukonis, M.A., Gilkeson, G.S., Pisetsky, D.S., Granger, D.L., and Weinberg, J.B. Increased expression of blood mononuclear cell nitric oxide synthase type 2 in rheumatoid arthritis patients. 1173.

Stebbins, C. *See* Katz, Stebbins, Appella, and Sant.

Steinberg, H.N. *See* Lorenz, Bergemann, Steinberg, Flanagan, Li, Galli, and Neel.

Steinberg, T.H. *See* Sloan-Lancaster, Steinberg, and Allen.

Steinman, R.M. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty, Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.

Stellrecht, K. *See* Kumar, Stellrecht, and Sercarz.

Steven, N.M., Leese, A.M., Annels, N.E., Lee, S.P., and Rickinson, A.B. Epitope focusing in the primary cytotoxic T cell response to Epstein-Barr virus and its relationship to T cell memory. 1801.

Stevens, R.L. *See* Ghildyal, Friend, Stevens, Austen, Huang, Penrose, Šali, and Gurish.

Stockinger, H. *See* Prager, Sunder-Plassmann, Hansmann, Koch, Holter, Knapp, and Stockinger.

Stöckl, J., Majdic, O., Kohl, P., Pickl, W.F., Menzel, J.E., and Knapp, W. Leukosialin (CD43)–major histocompatibility class I molecule interactions involved in spontaneous T cell conjugate formation. 1769.

Stolk, J. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.

Strauss, G. *See* Kong, Lomo, Motte, Giraldo, Baisch, Strauss, Hämmerling, and David.

Strieter, R.M. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.

Strominger, J.L. *See* Mandelboim, Reyburn, Valés-Gómez, Pazmany, Colonna, Borsellino, and Strominger.

Stryhn, A. *See* Larsen, Pedersen, Buus, and Stryhn.

Stuart, D.I. *See* Reid, McAdam, Smith, Klenerman, O'Callaghan, Harlos, Jakobsen, McMichael, Bell, Stuart, and Jones.

Stüber, D. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.

Stumbles, P.A. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.

Sturrock, R.D. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kinninmonth, Weidner, Mumford, and Liew.

Su, G.H., Ip, H.S., Cobb, B.S., Lu, M.-M., Chen, H.-M., and Simon, M.C. The Ets protein Spi-B is expressed exclusively in B cells and T cells during development. 203.

Suda, T. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.

Suh, W.-K., Mitchell, E.K., Yang, Y., Peterson, P.A., Waneck, G.L., and Williams, D.B. MHC class I molecules form ternary complexes with calnexin and TAP and undergo peptide-regulated interaction with TAP via their extracellular domains. 337.

Sui, X. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.

Sullenger, B.A. *See* Lee and Sullenger.

Sunaga, S. *See* Maki, Sunaga, and Ikuta.

Sunder-Plassmann, R. *See* Prager, Sunder-Plassmann, Hansmann, Koch, Holter, Knapp, and Stockinger.

Suschek, C. *See* Bruch-Gerharz, Fehsel, Suschek, Michel, Ruzicka, and Kolb-Bachofen.

Susin, S.A., Zamzami, N., Castedo, M., Hirsch, T., Marchetti, P., Macho, A., Daugas, E., Geuskens, M., and Kroemer, G. Bcl-2 inhibits the mitochondrial release of an apoptogenic protease. 1331.

— *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.

Sutkowski, N., Palkama, T., Ciurli, C., Sekaly, R.-P., Thorley-Lawson, D.A., and Huber, B.T. An Epstein-Barr virus–associated superantigen. 971.

Suzuki, H. *See* Punt, Suzuki, Granger, Sharrow, and Singer.

Suzuki, S. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.

Suzuki, Y. *See* Liesenfeld, Kosek, Remington, and Suzuki.

Swain, S.L. *See* Linton, Haynes, Klinman, and Swain.

Swan, K.A. *See* Alberola-Ila, Hogquist, Swan, Bevan, and Perlmutter.

Swofford, R. *See* Sechler, Lawler, Hartley, Morse, McCarty, Swofford, and Rosenberg.

Sy, M.-S. *See* Guo, Wu, Shinde, Sy, Aruffo, and Liu.

Sylvestre, D., Clynes, R., Ma, M., Warren, H., Carroll, M.C., and Ravetch, J.V. Immunoglobulin G–mediated inflammatory responses develop normally in complement-deficient mice. 2385.

Szabo, M.C. *See* Bacon, Szabo, Yssel, Bolen, and Schall.

Szczepanik, M., Anderson, L.R., Ushio, H., Ptak, W., Owen, M.J., Hayday, A.C., and Askenase, P.W. γδ T cells from tolerized αβ T cell receptor (TCR)–deficient mice inhibit contact sensitivity-effector T cells in vivo, and their interferon-γ production in vitro. 2129.

T

Tachibana, K. *See* Minegishi, Tachibana, Sato, Iwata, Nojima, and Morimoto.

Tada, T. *See* Hashimoto, Sohn, Levin, Tada, Perlmutter, and Nakayama.

Taga, T. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.

Tai, X.-G., Yashiro, Y., Abe, R., Toyooka, K., Wood, C.R., Morris, J., Long, A., Ono, S., Kobayashi, M., Hamaoka, T., Neben, S., and Fujiwara, H. A role for CD9 molecules in T cell activation. 753.

Tajima, S., Tsuji, K., Ebihara, Y., Sui, X., Tanaka, R., Muraoka, K., Yoshida, M., Yamada, K., Yasukawa, K., Taga, T., Kishimoto, T., and Nakahata, T. Analysis of interleukin 6 receptor and gp130 expressions and proliferative capability of human $CD34^+$ cells. 1357.

Takahashi, K. *See* Harrison, Dempsey-Collier, Kramer, and Takahashi.

Takahashi, T. *See* Tsujimura, Takahashi, Morita, Hasegawa-Nishiwaki, Iwase, and Obata.

Takakura, N., Kodama, H., Nishikawa, S., and Nishikawa, S.-I. Preferential proliferation of murine colony-forming units in culture in a chemically defined condition with a macrophage colony-stimulating factor–negative stromal cell clone. 2301.

Takashima, A. *See* Catalina, Carroll, Arizpe, Takashima, Estess, and Siegelman.

Takata, M., and Kurosaki, T. A role for Bruton's tyrosine kinase in B cell antigen receptor-mediated activation of phospholipase C-γ2. 31.

Takei, F. *See* Brennan, Lemieux, Freeman, Mager, and Takei.

— *See* Chappel, Hough, Mittel, Takei, Kay, and Humphries.

Talanian, R.V. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.

Tallquist, M.D., Yun, T.J., and Pease, L.R. A single T cell receptor recognizes structurally distinct MHC/peptide complexes with high specificity. 1017.
Tamm, M. *See* Roth, Nauck, Yousefi, Tamm, Blaser, Perruchoud, and Simon.
Tan, E.M. *See* Casiano, Martin, Green, and Tan.
Tanaka, R. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Tanaka, Y., Kimata, K., Wake, A., Mine, S., Morimoto, I., Yamakawa, N., Habuchi, H., Ashikari, S., Yamamoto, H., Sakurai, K., Yoshida, K., Suzuki, S., and Eto, S. Heparan sulfate proteoglycan on leukemic cells is primarily involved in integrin triggering and its mediated adhesion to endothelial cells. 1987.
Tang, Q., and Hendricks, R.L. Interferon γ regulates platelet endothelial cell adhesion molecule 1 expression and neutrophil infiltration into herpes simplex virus–infected mouse corneas. 1435.
Tate, K. *See* Beeson, Rabinowitz, Tate, Gütgemann, Chien, Jones, Davis, and McConnell.
Taub, D.T. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Taylor, N., Bacon, K.B., Smith, S., Jahn, T., Kadlecek, T.A., Uribe, L., Kohn, D.B., Gelfand, E.W., Weiss, A., and Weinberg, K. Reconstitution of T cell receptor signaling in ZAP-70–deficient cells by retroviral transduction of the *ZAP-70* gene. 2031.
Teepe, M. *See* Maraskovsky, Brasel, Teepe, Roux, Lyman, Shortman, and McKenna.
Temmesfeld, B. *See* Grimminger, Hattar, Papavassilis, Temmesfeld, Csernok, Gross, Seeger, and Sibelius.
ten Boekel, E. *See* Ghia, ten Boekel, Sanz, de la Hera, Rolink, and Melchers.
ten Cate, J.W. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.
Testi, R. *See* Sallusto, Nicolò, De Maria, Corinti, and Testi.
Teyton, L. *See* Lang, Jackson, Teyton, Brunmark, Kane, and Nemazee.
Thompson, C.B. *See* Brown, Green, Moskowitz, Davis, Thompson, and Reiner.
Thompson-Snipes, L. *See* Davidson, Leach, Fort, Thompson-Snipes, Kühn, Müller, Berg, and Rennick.
Thorley-Lawson, D.A. *See* Decker, Shankar, Khan, Freeman, Dezube, Lieberman, and Thorley-Lawson.
— *See* Sutkowski, Palkama, Ciurli, Sekaly, Thorley-Lawson, and Huber.
Tien, Y.-t. *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
Tighe, H. *See* Corr, Lee, Carson, and Tighe.
Toda, M. *See* Asano, Toda, Sakaguchi, and Sakaguchi.
Todd, S.C., Lipps, S.G., Crisa, L., Salomon, D.R., and Tsoukas, C.D. CD81 expressed on human thymocytes mediates integrin activation and interleukin 2–dependent proliferation. 2055.
Toes, R. *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Tomkowiak, M. *See* Pihlgren, Dubois, Tomkowiak, Sjögren, and Marvel.
Tomlinson, S. *See* González, Ramalho-Pinto, Frevert, Ghiso, Tomlinson, Scharfstein, Corey, and Nussenzweig.
Tonegawa, S. *See* Jacobs, Iacomini, van de Ven, Tonegawa, and Berns.
Toribio, M.L. *See* Ramiro, Trigueros, Márquez, San Millán, and Toribio.
Toyoda, M. *See* Hara, Toyoda, Yaar, Bhawan, Avila, Penner, and Gilchrest.
Toyooka, K. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Tran, T. *See* Flamand, Shores, Tran, Huang, Lee, Grinberg, Kinet, and Love.
Trapani, J.A. *See* Song, Burrows, Smith, Lees-Miller, Kumar, Chan, Trapani, Alnemri, Litwack, Lu, Moss, Jackson, and Lavin.
Tree, P. *See* Martínez-Pomares, Kosco-Vilbois, Darley, Tree, Herren, Bonnefoy, and Gordon.
Trigueros, C. *See* Ramiro, Trigueros, Márquez, San Millán, and Toribio.
Trotta, R., Kanakaraj, P., and Perussia, B. FcγR-dependent mitogen-activated protein kinase activation in leukocytes: a common signal transduction event necessary for expression of TNF-α and early activation genes. 1027.
Troutt, A.B. *See* D'Souza, Bonetti, Balasingam, Cashman, Barker, Troutt, Raine, and Antel.
Trowsdale, J. *See* van Ham, Grüneberg, Malcherek, Bröker, Melms, and Trowsdale.
Tschopp, J. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.
Tsoukas, C.D. *See* Todd, Lipps, Crisa, Salomon, and Tsoukas.
Tsuji, K. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Tsujimura, K., Takahashi, T., Morita, A., Hasegawa-Nishiwaki, H., Iwase, S., and Obata, Y. Positive selection of γδ CTL by TL antigen expressed in the thymus. 2175.
Tsunawaki, S., Kagara, S., Yoshikawa, K., Yoshida, L.S., Kuratsuji, T., and Namiki, H. Involvement of $p40^{phox}$ in activation of phagocyte NADPH oxidase through association of its carboxyl-terminal, but not its amino-terminal, with $p67^{phox}$. 893.
Tuosto, L., Michel, F., and Acuto, O. $p95^{vav}$ associates with tyrosine-phosphorylated SLP-76 in antigen-stimulated T cells. 1161.

U

Udey, M.C. *See* Borkowski, Letterio, Farr, and Udey.
Underwood, J.L. *See* La Fleur, Underwood, Rappolee, and Werb.
Urbain, J. *See* De Smedt, Pajak, Muraille, Lespagnard, Heinen, De Baetselier, Urbain, Leo, and Moser.
Uribe, L. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Ushio, H. *See* Szczepanik, Anderson, Ushio, Ptak, Owen, Hayday, and Askenase.

V

Valés-Gómez, M. *See* Mandelboim, Reyburn, Valés-Gómez, Pazmany, Colonna, Borsellino, and Strominger.
Valiante, N.M., Phillips, J.H., Lanier, L.L., and Parham, P. Killer cell inhibitory receptor recognition of human leukocyte antigen (HLA) class I blocks formation of a pp36/PLC-γ signaling complex in human natural killer (NK) cells. 2243.
— *See* Barber, Percival, Valiante, Chen, Lee, Gumperz, Phillips, Lanier, Bigge, Parekh, and Parham.
Vamvakas, S. *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Vanbervliet, B. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
van Beveren, C. *See* Celada, Borràs, Soler, Lloberas, Klemsz, van Beveren, McKercher, and Maki.
van Damme, J. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.
van den Broek, M.F., Kägi, D., Ossendorp, F., Toes, R., Vamvakas, S., Lutz, W.K., Melief, C.J.M., Zinkernagel, R.M., and Hengartner, H. Decreased tumor surveillance in perforin-deficient mice. 1781.
Vanderlugt, C.L. *See* Karandikar, Vanderlugt, Walunas, Miller, and Bluestone.
van der Meide, P. *See* Zhang, Xiao, Bakhiet, van der Meide, Wigzell, Link, and Olsson.
van der Poll, T. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.
van de Ven, M. *See* Jacobs, Iacomini, van de Ven, Tonegawa, and Berns.
van Deventer, S.J.H. *See* Pajkrt, Doran, Koster, Lerch, Arnet, van der Poll, ten Cate, and van Deventer.
van Ewijk, W. *See* Gravestein, van Ewijk, Ossendorp, and Borst.
van Ham, S.M., Grüneberg, U., Malcherek, G., Bröker, I., Melms, A., and Trowsdale, J. Human histocompatibility leukocyte antigen (HLA)-DM edits peptides presented by HLA-DR according to their ligand binding motifs. 2019.

Van Kaer, L. *See* Joyce, Negishi, Boesteanu, DeSilva, Sharma, Chorney, Loh, and Van Kaer.
van Lier, R.A.W. *See* Hamann, Vogel, van Schijndel, and van Lier.
van Schijndel, G.M.W. *See* Hamann, Vogel, van Schijndel, and van Lier.
Van Zee, K. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Varnum, D.S. *See* Serreze, Chapman, Varnum, Hanson, Reifsnyder, Richard, Fleming, Leiter, and Shultz.
Vassalli, P. *See* Rodriguez, Matsuura, Ody, Nagata, and Vassalli.
Vauthey, J.-N. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.
Verdiani, S. *See* Pende, Biassoni, Cantoni, Verdiani, Falco, Di Donato, Accame, Bottino, Moretta, and Moretta.
Verhoeven, A.J. *See* Leusen, de Klein, Hilarius, Åhlin, Palmblad, Smith, Diekmann, Hall, Verhoeven, and Roos.
Vincent, M.S., Roessner, K., Lynch, D., Wilson, D., Cooper, S.M., Tschopp, J., Sigal, L.H., and Budd, R.C. Apoptosis of Fas^{high} CD4^{+} synovial T cells by *Borrelia*-reactive Fas-ligand^{high} γδ T cells in Lyme arthritis. 2109.
Virgolini, I. *See* Geissler, Öhler, Födinger, Virgolini, Leimer, Kabrna, Kollars, Skoupy, Bohle, Rogy, and Lechner.
Vivier, E. *See* Renard, Romero, Vivier, Malissen, and Luescher.
Vodovotz, Y., Lucia, M.S., Flanders, K.C., Chesler, L., Xie, Q.-W., Smith, T.W., Weidner, J., Mumford, R., Webber, R., Nathan, C., Roberts, A.B., Lippa, C.F., and Sporn, M.B. Inducible nitric oxide synthase in tangle-bearing neurons of patients with Alzheimer's disease. 1425.
Vogel, B. *See* Hamann, Vogel, van Schijndel, and van Lier.
Vora, M., Romero, L.I., and Karasek, M.A. Interleukin-10 induces E-selectin on small and large blood vessel endothelial cells. 821.
Vukmanović, S. The molecular jury: deciding whether immature thymocytes should live or die. 305.

W

Wagner, D.H., Jr., Hagman, J., Linsley, P.S., Hodsdon, W., Freed, J.H., and Newell, M.K. Rescue of thymocytes from glucocorticoid-induced cell death mediated by CD28/CTLA-4 costimulatory interactions with B7-1/B7-2. 1631.
Wagtmann, N. *See* Peruzzi, Wagtmann, and Long.
Wake, A. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Wakelin, M.W., Sanz, M.-J., Dewar, A., Albelda, S.M., Larkin, S.W., Boughton-Smith, N., Williams, T.J., and Nourshargh, S. An anti–platelet-endothelial cell adhesion molecule-1 antibody inhibits leukocyte extravasation from mesenteric microvessels in vivo by blocking the passage through the basement membrane. 229.
Walunas, T.L., Bakker, C.Y., and Bluestone, J.A. CTLA-4 ligation blocks CD28-dependent T cell activation: Correction. 301.
— *See* Karandikar, Vanderlugt, Walunas, Miller, and Bluestone.
Waneck, G.L. *See* Suh, Mitchell, Yang, Peterson, Waneck, and Williams.
Wang, J., Koizumi, T., and Watanabe, T. Altered antigen receptor signaling and impaired Fas-mediated apoptosis of B cells in *Lyn*-deficient mice. 831.
Wang, R.-F., Appella, E., Kawakami, Y., Kang, X., and Rosenberg, S.A. Identification of TRP-2 as a human tumor antigen recognized by cytotoxic T lymphocytes. 2207.
Wang, X.Y. *See* Zheng, Ojcius, Garaud, Roth, Maxwell, Li, Rong, Chen, Wang, Catino, and King.
Warren, H. *See* Sylvestre, Clynes, Ma, Warren, Carroll, and Ravetch.
Watanabe, H., Miyaji, C., Seki, S., and Abo, T. c-kit^{+} stem cells and thymocyte precursors in the livers of adult mice. 687.
Watanabe, T. *See* Wang, Koizumi, and Watanabe.
Webber, R. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Wei, X.Q. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kininmonth, Weidner, Mumford, and Liew.
Wei, Y. *See* Granelli-Piperno, Moser, Pope, Chen, Wei, Isdell, O'Doherty. Paxton, Koup, Mojsov, Bhardwaj, Clark-Lewis, Baggiolini, and Steinman.
Weidner, J. *See* McInnes, Leung, Field, Wei, Huang, Sturrock, Kininmonth, Weidner, Mumford, and Liew.
— *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Weigert, M.G. *See* Hannum, Ni, Haberman, Weigert, and Shlomchik.
Weih, F. *See* Snapper, Rosas, Zelazowski, Moorman, Kehry, Bravo, and Weih.
Weinberg, J.B. *See* Anstey, Weinberg, Hassanali, Mwaikambo, Manyenga, Misukonis, Arnelle, Hollis, McDonald, and Granger.
— *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.
Weinberg, K. *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Weiss, A. *See* Fry, Lanier, and Weiss.
— *See* Shapiro, Mollenauer, Greene, and Weiss.
— *See* Taylor, Bacon, Smith, Jahn, Kadlecek, Uribe, Kohn, Gelfand, Weiss, and Weinberg.
Welborn, M.B., III, Van Zee, K., Edwards, P.D., Pruitt, J.H., Kaibara, A., Vauthey, J.-N., Rogy, M., Castleman, W.L., Lowry, S.F., Kenney, J.S., Stüber, D., Ettlin, U., Wipf, B., Loetscher, H., Copeland, E.M., III, Lesslauer, W., and Moldawer, L.L. A human tumor necrosis factor p75 receptor agonist stimulates in vitro T cell proliferation but does not produce inflammation or shock in the baboon. 165.
Wells, T.N.C. *See* McWilliam, Napoli, Marsh, Pemper, Nelson, Pimm, Stumbles, Wells, and Holt.
Welsh, S.C. *See* Lívák, Welsh, Guidos, Crispe, Danska, and Schatz.
Weltzin, R. *See* Frey, Giannasca, Weltzin, Giannasca, Reggio, Lencer, and Neutra.
Wen, L., Pao, W., Wong, F.S., Peng, Q., Craft, J., Zheng, B., Kelsoe, G., Dianda, L., Owen, M.J., and Hayday, A.C. Germinal center formation, immunoglobulin class switching, and autoantibody production driven by "non α/β" T cells: Correction. 795.
Werb, Z. *See* La Fleur, Underwood, Rappolee, and Werb.
Wershil, B.K. *See* Jia, Gonzalo, Lloyd, Kremer, Lu, Martinez-A, Wershil, and Gutierrez-Ramos.
Westvik, Å.-B. *See* Brandtzaeg, Osnes, Øvstebø, Joø, Westvik, and Kierulf.
Whitlow, M. *See* Marshall, Hasegawa, Davidson, Nussenzweig, and Whitlow.
Whyte, R.I. *See* Arenberg, Kunkel, Polverini, Morris, Burdick, Glass, Taub, Iannettoni, Whyte, and Strieter.
Widmann, K.-H. *See* Kopf, Brombacher, Köhler, Kienzle, Widmann, Lefrang, Humborg, Ledermann, and Solbach.
Wiegmann, K. *See* Machleidt, Krämer, Adam, Neumann, Schütze, Wiegmann, and Krönke.
Wigzell, H. *See* Zhang, Xiao, Bakhiet, van der Meide, Wigzell, Link, and Olsson.
Wilkinson, W.E. *See* St. Clair, Wilkinson, Lang, Sanders, Misukonis, Gilkeson, Pisetsky, Granger, and Weinberg.
Willemze, R. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.
Williams, D.B. *See* Suh, Mitchell, Yang, Peterson, Waneck, and Williams.
Williams, T.J. *See* Wakelin, Sanz, Dewar, Albelda, Larkin, Boughton-Smith, Williams, and Nourshargh.
Williamson, P.R. *See* Salas, Bennett, Kwon-Chung, Perfect, and Williamson.
Willnow, T.E. *See* Sinnis, Willnow, Briones, Herz, and Nussenzweig.
Wilson, D. *See* Vincent, Roessner, Lynch, Wilson, Cooper, Tschopp, Sigal, and Budd.
Winkler, T.H. *See* Reininger, Winkler, Kalberer, Jourdan, Melchers, and Rolink.
Winkler-Pickett, R. *See* Mason, Anderson, Yokoyama, Smith, Winkler-Pickett, and Ortaldo.
Winslow, G.M. *See* Mix and Winslow.
Wipf, B. *See* Welborn, Van Zee, Edwards, Pruitt, Kaibara, Vauthey, Rogy, Castleman, Lowry, Kenney, Stüber, Ettlin, Wipf, Loetscher, Copeland, Lesslauer, and Moldawer.

Wolf, S.D., Dittel, B.N., Hardardottir, F., and Janeway, C.A., Jr. Experimental autoimmune encephalomyelitis induction in genetically B cell–deficient mice. 2271.
Wong, F.S. *See* Grewal, Grewal, Wong, Picarella, Janeway, and Flavell.
— *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Wong, W. *See* Ghayur, Hugunin, Talanian, Ratnofsky, Quinlan, Emoto, Pandey, Datta, Huang, Kharbanda, Allen, Kamen, Wong, and Kufe.
Wood, C.R. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Wright, S.D. *See* Cai and Wright.
Wu, L., Li, C.-L., and Shortman, K. Thymic dendritic cell precursors: relationship to the T lymphocyte lineage and phenotype of the dendritic cell progeny. 903.
— *See* Saunders, Lucas, Ismaili, Wu, Maraskovsky, Dunn, and Shortman.
Wu, M.-L. *See* Sarin, Wu, and Henkart.
Wu, W., Harley, P.H., Punt, J.A., Sharrow, S.O., and Kearse, K.P. Identification of CD8 as a peanut agglutinin (PNA) receptor molecule on immature thymocytes. 759.
Wu, W.W. *See* Solvason, Wu, Kabra, Wu, Lees, and Howard.
Wu, X. *See* Solvason, Wu, Kabra, Wu, Lees, and Howard.
Wu, Y. *See* Guo, Wu, Shinde, Sy, Aruffo, and Liu.
Wuyts, A. *See* Goselink, van Damme, Hiemstra, Wuyts, Stolk, Fibbe, Willemze, and Falkenburg.
Wynn, T.A. *See* Brown, Fowell, Corry, Wynn, Moskowitz, Cheever, Locksley, and Reiner.
Wypych, J. *See* Klimpel, Langley, Wypych, Abrams, Chopra, and Niesel.

X

Xiao, B.-G. *See* Zhang, Xiao, Bakhiet, van der Meide, Wigzell, Link, and Olsson.
Xie, Q.-W. *See* Vodovotz, Lucia, Flanders, Chesler, Xie, Smith, Weidner, Mumford, Webber, Nathan, Roberts, Lippa, and Sporn.
Xu, Y. *See* Gilligan, Bredy, Brady, Hébert, Slayter, Xu, Rauch, Shia, Koh, and Levine.

Y

Yaar, M. *See* Hara, Toyoda, Yaar, Bhawan, Avila, Penner, and Gilchrest.
Yagita, H. *See* Yamashita, Miyake, Miura, Kaneko, Yagita, Suda, Nagata, Nomura, Sakaguchi, and Kimoto.
Yakura, H. *See* Mizuno, Katagiri, Hasegawa, Ogimoto, and Yakura.
Yamada, K. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Yamakawa, N. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Yamamoto, H. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Yamashita, Y., Miyake, K., Miura, Y., Kaneko, Y., Yagita, H., Suda, T., Nagata, S., Nomura, J., Sakaguchi, N., and Kimoto, M. Activation mediated by RP105 but not CD40 makes normal B cells susceptible to anti-IgM–induced apoptosis: a role for Fc receptor coligation. 113.
Yang, Y. *See* Suh, Mitchell, Yang, Peterson, Waneck, and Williams.
Yao, L., Pan, J., Setiadi, H., Patel, K.D., and McEver, R.P. Interleukin 4 or oncostatin M induces a prolonged increase in P-selectin mRNA and protein in human endothelial cells. 81.
Yashiro, Y. *See* Tai, Yashiro, Abe, Toyooka, Wood, Morris, Long, Ono, Kobayashi, Hamaoka, Neben, and Fujiwara.
Yasukawa, K. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Ye, W., Zheng, L.-M., Young, J.D.-E, and Liu, C.-C. The involvement of interleukin (IL)-15 in regulating the differentiation of granulated metrial gland cells in mouse pregnant uterus. 2405.
Yednock, T.A. *See* Hwang, Singer, Giblin, Yednock, Bacon, Simon, and Rosen.
Yin, D. *See* Krieger, Yin, and Fathman.
Yokoyama, W.M. *See* Mason, Anderson, Yokoyama, Smith, Winkler-Pickett, and Ortaldo.
Yoneda, K. *See* Caux, Vanbervliet, Massacrier, Dezutter-Dambuyant, de Saint-Vis, Jacquet, Yoneda, Imamura, Schmitt, and Banchereau.
Yoshida, A. *See* Kimata, Fujimoto, Ishioka, and Yoshida.
Yoshida, K. *See* Tanaka, Kimata, Wake, Mine, Morimoto, Yamakawa, Habuchi, Ashikari, Yamamoto, Sakurai, Yoshida, Suzuki, and Eto.
Yoshida, L.S. *See* Tsunawaki, Kagara, Yoshikawa, Yoshida, Kuratsuji, and Namiki.
Yoshida, M. *See* Tajima, Tsuji, Ebihara, Sui, Tanaka, Muraoka, Yoshida, Yamada, Yasukawa, Taga, Kishimoto, and Nakahata.
Yoshikawa, K. *See* Tsunawaki, Kagara, Yoshikawa, Yoshida, Kuratsuji, and Namiki.
Yoshikawa, T., Hill, J.M., Stanberry, L.R., Bourne, N., Kurawadwala, J.F., and Krause, P.R. The characteristic site-specific reactivation phenotypes of HSV-1 and HSV-2 depend upon the latency-associated transcript region. 659.
Young, J.D.-E *See* Ye, Zheng, Young, and Liu.
Yousefi, S. *See* Roth, Nauck, Yousefi, Tamm, Blaser, Perruchoud, and Simon.
Yssel, H. *See* Bacon, Szabo, Yssel, Bolen, and Schall.
— *See* Sornasse, Larenas, Davis, de Vries, and Yssel.
Yuan, J. *See* Friedlander, Gagliardini, Rotello, and Yuan.
Yun, T.J. *See* Tallquist, Yun, and Pease.

Z

Zamai, L. *See* Bennett, Zatsepina, Zamai, Azzoni, Mikheeva, and Perussia.
Zamzami, N. *See* Marchetti, Castedo, Susin, Zamzami, Hirsch, Macho, Haeffner, Hirsch, Geuskens, and Kroemer.
— *See* Susin, Zamzami, Castedo, Hirsch, Marchetti, Macho, Daugas, Geuskens, and Kroemer.
Zatsepina, O. *See* Bennett, Zatsepina, Zamai, Azzoni, Mikheeva, and Perussia.
Zelazowski, P. *See* Snapper, Rosas, Zelazowski, Moorman, Kehry, Bravo, and Weih.
Zhang, G.-X., Xiao, B.-G., Bakhiet, M., van der Meide, P., Wigzell, H., Link, H., and Olsson, T. Both $CD4^+$ and $CD8^+$ T cells are essential to induce experimental autoimmune myasthenia gravis. 349.
Zhang, J., Berenstein, E.H., Evans, R.L., and Siraganian, R.P. Transfection of Syk protein tyrosine kinase reconstitutes high affinity IgE receptor–mediated degranulation in a Syk-negative variant of rat basophilic leukemia RBL-2H3 cells. 71.
Zhang, Y., Rogers, K.H., and Lewis, D.B. β2-microglobulin–dependent T cells are dispensable for allergen-induced T helper 2 responses. 1507.
— *See* Henderson, Lewis, Albert, Zhang, Lamm, Chiang, Jones, Eriksen, Tien, Jonas, and Chi.
— *See* Portanova, Zhang, Anderson, Hauser, Masferrer, Seibert, Gregory, and Isakson.
Zheng, B., Han, S., and Kelsoe, G. T helper cells in murine germinal centers are antigen-specific emigrants that downregulate Thy-1. 1083.
— *See* Wen, Pao, Wong, Peng, Craft, Zheng, Kelsoe, Dianda, Owen, and Hayday.
Zheng, L.M., Ojcius, D.M., Garaud, F., Roth, C., Maxwell, E., Li, Z., Rong, H., Chen, J., Wang, X.Y., Catino, J.J., and King, I. Interleukin-10 inhibits tumor metastasis through an NK cell–dependent mechanism. 579.
Zheng, L.-M. *See* Ye, Zheng, Young, and Liu.
Zhong, G., Castellino, F., Romagnoli, P., and Germain, R.N. Evidence that binding site occupancy is necessary and sufficient for effective major histocompatibility complex (MHC) class II transport through the secretory pathway redefines the primary function of class II–associated invariant chain peptides (CLIP). 2061.
Zinkernagel, R.M. *See* van den Broek, Kägi, Ossendorp, Toes, Vamvakas, Lutz, Melief, Zinkernagel, and Hengartner.
Zsebo, K.M. *See* Hege, Cooke, Finer, Zsebo, and Roberts.

SUBJECT INDEX VOLUME 184

Aβ precursor protein, in conjunction with other inflammatory stimuli induces enzymatically active nitric oxide synthase 2 in brains of Alzheimer's disease patients, 1425
Acetylcholine receptor
  clustering, utrophin in, 609
  injections of, induces experimental autoimmune myasthenia gravis, 349
Acid release, increase in rate, caused by early biochemical events leading to cellular proliferation, 777
Activation protein 1, Ca^{2+}/calmodulin–dependent protein kinase type IV/Gr activates expression of, 101
Adaptor protein pp36, targeted by natural killer cell inhibitory signals, as substrate for killer cell inhibitory receptor–protein tyrosine phosphatase-1C, 2243
AdgB8-immunized mice, cytotoxic T lymphocyte memory within the mucosal immune compartments of, 1879
Adhesion, intercellular, CD31 mediates via homophilic and heterophilic interaction mechanisms, 41
Aerosol insulin, induces regulatory CD8 γδ T cells that prevent insulin-dependent diabetes mellitus, 2167
Agammaglobulinemia, X-linked, caused by defects in gene encoding Bruton's tyrosine kinase (Btk), 31
Aged mice, increase in memory phenotype cells, transgenic-positive $CD4^+$ T cells retain a naive phenotype, express lower levels of R123, and become hyporesponsive in, 1891
Airway eosinophilia, mediated by leukotrienes, 1484
Airway epithelium, dendritic cells rapidly recruited into, innate immune response of, 2429
Allergic airway inflammation, role of leukotrienes in, antiinflammatory effect by leukotriene inhibitors, 1484
Allergy, and autoimmunity, 265
Allograft, rejection, role of interleukin 10 in preventing, 19
Allopeptide dEV-8, ligand in the K^{bm3} molecule for the 2C T cell receptor, 1017
Allorejection, role of $CD4^+$ and $CD8^+$ T cells in, requires $CD4^+$ T cells, does not require $CD8^+$ T cells, 2013
Altered peptide ligands
  antagonism and T cell receptor recognition, 2279
  production by substituting T cell receptor contact residues with amino acid structures, structural basis for the T cell recognition of, induce different T cell responses from those induced by antigenic ligand, molecular basis for, 1259
  selective activation of the calcium signaling pathway by, 1525
Alzheimer's disease, nitric oxide synthase 2 expression in tangle-bearing neurons of patients, 1425
Amino acid side chain, relationship between its structure which interacts with T cell receptor and how that T cell perceives ligand, 1259
Amino acid structures, as replacement of T cell receptor contact residues to produce altered peptide ligands, 1259
Aminopeptidase N, ectopeptidase, involved in cell-surface antigen processing, 183
Anergy
  reversed by stimulation of T cell clones with IL-2, 1
  role of high doses of antigen in, 485
Anergy, T cell
  and differential association with protein tyrosine kinases, 365
  induced by interleukin 10 (IL-10), 19
  induced by triggering T cell stimulation through T cell receptor in absence of costimulatory signals, 159
  linked with differential association of protein tyrosine kinases, 365
  molecular mechanisms of, 1
Anhydroretinol, inhibits growth in lymphocytes, 549
Antagonists, advantage over agonists in inducing net positive selection, may be due to delivery of qualitatively different signals to developing thymocytes, 149
Anti-aminopeptidase N (APN) antibodies, R3-63 and 2M-7, inhibit APN activity, 183
Antibody
  anti–prostaglandin E_2, reversal of paw edema and interleukin 6 production in rat adjuvant arthritis, 883
  5E6, detects two Ly-49C–related molecules in B6 mice, 2085
Anti-CD3 monoclonal antibody, effect on antigen-induced pulmonary eosinophilia, 1461
Antigen processing, involvement of aminopeptidase N in, 183
Antigen receptor signaling, alteration in Fas-deficient mice, 831
Antigen-induced pulmonary eosinophilia, regulation of macrophage inhibitory protein-1α, RANTES, and eotaxin in, associated with induction of eotaxin and macrophage inhibitory protein-1α, prechallenge treatment with anti-CD3 antibody inhibits eotaxin induction and reduces eosinophil accumulation in lung, 1461
Antigen-presenting cells
  allogeneic, fail to prevent induction of anergy, 1
  rapid killing by $CD8^+$ T cells prevents continued interaction between $CD8^+$ T cells and the same or other T cells and reduces cytokine synthesis, 1543
Antigens
  foreign, recognition by $CD8^+$ T cells, 923
  processing facilitated by stabilization of empty class II major histocompatibility complex molecules, 2153
  route of entry determines requirement for L-selectin during immune responses, 2341
  single, in tumor rejection, 441
  uptake and presentation by dendritic cells modulated by ceramides, 2411
Antigen-specific B cells, as targets for regulation by $CD8^+$ T cells, 1179
Antiinflammatory, principles, in septic shock plasma, have stronger impact on activation state of human monocytes than proinflammatory principles, 51
Antileukoproteinase, supports hematopoiesis in vivo, 1305
Antineutrophil cytoplasmic autoantibodies, recognize unprimed apoptotic neutrophils, interact with primary granule constituents on the surface of apoptotic neutrophils in the absence of neutrophil priming, 2231
Antiproteasome antibodies, as candidate for diagnostic marker, modulation of proteinase function by, in sera from patients with systemic lupus erythematosus and myositis, 1313
Anti–proteinase 3 antibodies, activate neutrophils in Wegener's granulomatosis, potent inductors of the 5-lipoxygenase pathway in primed human neutrophils, 1567
Antisense oligonucleotides, addition to a fetal thymic organ culture system prohibits T cell development from prethymic progenitors, 1137
AP-1, activation as mediator c-Rel regulation of interleukin 2 gene expression, 1663
Apoptosis
  anti-IgM–induced, in RP105 blasts, is independent of Fas, 113
  CD95-mediated, 765
  coordinated by mitochondrial permeability transition, events secondary to mitochondrial permeability transition, effect of bongkrekic acid on cells undergoing, 1155
  of Fas^{high} $CD4^+$ synovial T cells in Lyme arthritis, 2109
  glucocorticoid-induced, mediated through CD28/CTLA-4 interactions with B7-1/B7-2, 1631
  high dose antigen induction, 485
  induced by anhydroretinol, 549
  induced by heat stable antigen, 1639
  induced in Ly-49D$^+$ natural killer cells, 2119
  induced by microglia, 1737
  inhibition mediated by Bcl-2, 1331
  inhibitory factor, biochemical characterization of, formation and action unaffected by Bcl-2, release affected by Bcl-2, protease activity in, 1331
  interleukin 1β (IL-1β)–converting enzyme–mediated, functional role of IL-1β in, 717
  mediated by Fas/Fas ligand pathway, 429
  proteolytic activation of protein kinase C δ by a CPP32-like kinase induces characteristics of, 2399
  of T cells, role of interleukin 1β–converting enzyme family proteases in, blocked by inhibitors of interleukin 1β–converting enzyme family proteases, at different stages of T cell differentiation use different members of interleukin 1β–converting enzyme family proteases, 2445
Apoptotic permeability transition, release suppressed by Bcl-2, relationship with protease activation during effector phase of apoptosis, 1331
Apoptotic T cells, as part of same T cell subset that is augmented in human immunodeficiency virus infection, 971
Appendectomy, and development of ulcerative colitis, 707
Appendix, in inflammatory bowel disease, 707

Arachidonic acid, role in autoantibody-related human neutrophil activation, its presence reveals strong activation of the 5-lipoxygenase pathway, 1567
Aspergillus fumigatus, allergy, 265
Autoantibody production, complex patterns triggered by immunity to a single peptide determinant, 1857
Autoantigen, cleavage during CD95-mediated apoptosis, 765
Autoimmune diabetes, prevention by $CD4^+CD8^-$ thymocytes in lymphopenic animals, 2393
Autoimmune disease
  abrogation in nonobese diabetic mice by pancreatic interleukin 4 expression, 1093
  CTLA-4 in, 783
  induced by thymectomy, 387
Autoimmune responses, oligoclonal, blocked by decoy RNA, 315
Autoimmunity
  in allergy, 265
  consequence of developmental abnormality of T cell subpopulation, 387
  to a simple peptide determinant, can lead to complex autoantibody patterns through intra- and intermolecular spreading, 1857
Autoreactive islet-specific T cells, transgene-encoded tumor necrosis factor α in islets prevents the development of, 1963
B*4601, increased peptide selectivity of, 735
B7-1, in negative selection of thymocytes, 531
B7-1/B7-2, interaction with CD28/CTLA-4 mediates glucocorticoid-induced apoptosis, 1631
B cell antigens, those with very low affinity for B cell receptor may fail to mediate tolerance, 1685
B cell autoimmunity, events leading to, 1269
B cell differentiation, related to division cycle number, 277
B cell precursors, heat stable antigen induces apoptosis in, 1639
B cell receptor
  cross-linking of on Lyn-negative cells, evokes delayed and slow increase in intracellular free Ca^{2+} concentration, 71
  of human immunoglobulin E, similarities and differences between, 2197
  signal transduction, mechanisms of SHP-1 action in, 457
  signaling, participation of Lyn in, 831
B cell–deficient mice, experimental autoimmune encephalitis induced in, 2271
B cells
  abnormalities related to the development of murine systemic lupus erythematosus, defective in autoimmune-prone New Zealand black and white mice, 853
  antigen-driven differentiation via induction of a follicular dendritic cell network and germinal centers in the parenchyma of inflamed lungs, 2353
  CD40-activated, become extremely susceptible to Fas-mediated apoptosis, 113
  differentiation into antibody-secreting cells, stimulated by interleukin 10, 579
  maintenance and expansion affected by CD5–V_H framework interaction, 1279
  presentation of class I antigen, 1179
  role in immune regulation of experimental autoimmune encephalitis, not required for activation of encephalitogenic T cells, 2271
  role in mediation of inflammatory bowel disease, 241
  tolerance in rheumatoid factor transgenic mouse model, autoreactive vs. nonautoreactive, participation in memory responses, 1269
  tolerance to ultraflow affinity antigen, sensitivity of tolerance mechanisms to cell receptor–antigen affinity, 1685
B lymphocyte follicles, absence in mutant mice, 1207
B lymphocyte–deficient NOD.*Igμ*^{null} mice, alteration of insulin-dependent diabetes mellitus pathogenesis in, 2049
B lymphocytes
  cell cycle regulation in, 407
  role in T cell–mediated autoimmune insulin-dependent diabetes mellitus, 2049
B6 mice, 5E6 antibody detects two Ly-49C–related molecules in, 2085
B6 natural killer cells, two cDNA clones isolated from, 2085
B pocket hydrogen bonding network, role in conformational variation on T cell receptor recognition of H-$2K^{bm8}$, 253
BALB/c mice, rendered resistant to Leishmaniasis by disruption of IL-4 gene, 1127
Basement membrane, platelet-endothelial cell adhesion molecule-1 triggers passage of leukocytes across, 229
Bcl-2, mediates apoptosis inhibition, suppresses release of apoptotic permeability transition and apoptotic inhibitory factor, effect on formation, release, and action of apoptosis inhibitory factor, favors retention of apoptogenic protease in mitochondria, 1331
BDC 2.5 T cell receptor–immunoglobulin G1 protein, specificity of antibody response in nonobese diabetic mice, ability of antibodies to protect young nonobese diabetic mice against adoptive transfer of diabetes, 1755
Becker muscular dystrophy, sarcolemmal nitric oxide synthase in, 609
Binding site occupancy (by class II–associated invariant chain peptides), role in major histocompatibility complex class II transport through the secretory pathway, promotes effective export of class II molecules useful for endocytic peptide acquisition, 2061
Binding sites, putative PU.1, Spi-B specifically binds to, 203
Biosynthesis, type 3 polysaccharide, directed by *cap3B* gene, 449
Bipotential T/natural killer progenitor cells, differentiation of, effects of interleukin 15 and interleukin 2 on, 325
Birbeck granules, in dendritic cells, 695
Bone marrow accessory cells, neutralize proteinases, 1305
Bone marrow allograft rejection, prevented by Ly49A natural killer cell receptor transgenic expression, 2037
Bone marrow cells, c-kit^+ stem cells in, 687
Bone marrow progenitor cells, hyperproliferation in response to Kit ligand stimulation in *me/me* mice, 1111
Bone marrow stromal cell line MS5, lymphocyte chemotactic activity in the supernatants of, 1101
Bone marrow–derived antigen-presenting cells, cytotoxic T lymphocyte response after naked plasmid DNA vaccination involves the major histocompatibility complex of, 1555
Bongkrekic acid, effect on cells undergoing apoptosis, 1155
Bruton's tyrosine kinase, mutations in gene encoding, responsible for X-linked agammaglobulinemia, 31
2C, transgenic, intraepithelial lymphocytes, 493
γc subunit, functional, lack of in mice affects lymphoid development, 289
2C T cell receptor, allopeptide dEV-8 is a ligand in its K^{bm3} molecule, single receptor recognizes two distinct major histocompatibility complex/peptide complexes as antigens, 1017
Ca^{2+}/calmodulin–dependent protein kinase type IV/Gr, reconstitutes nuclear factor of activated T cell–dependent transcription in non–T cells, 101
Calcineurin, mediates signaling, in anergic T cells, 19
Calcitonin gene–related peptide, induces melanocyte proliferation, 1385
Calcium ionophore
  induces expression of interleukin 2 mRNA, in T cells, 159
  stimulation of Syk-deficient TB1A2 cells with, induces granulation, 71
  stimulation of T cells with, induces expression, but not synthesis of, interleukin 2 (IL-2) mRNA, 159
Calcium mobilization, B cell receptor induced, abolished in Bruton's tyrosine kinase (Btk)-deficient DT40 B cells, 31
Calcium signaling pathway, activation by altered peptide ligands, 1525
Calcium-blocked, anergy, 1
Calnexin, complex with endoplasmic reticulum peptide transporter, TAP, 337
cap3B gene, in formation of capsule of *Streptococcus pneumoniae* type 3, 449
Carbohydrate/carbohydrate molecules, could be directed to B cell areas through recognition of mannose receptor carbohydrate recognition domain, 1927
Castleman's disease, simultaneous inactivation of interleukin 6 and C/EBPβ genes prevents development of pathological traits of Castleman's disease in C/EBPβ-deficient mice, 1561
C5b67 membrane assembly, role of sialic acid moieties in, 1225
Cbl, tyrosine phosphorylation induced by immunoglobulin E (FcεRI) receptor, preliminary mapping of phosphorylation, non–tyrosine phosphorylated form interacts with Src homology 2 domain/linker regions of Syk, Syk-dependent tyrosine phosphorylation of, 1713
CC, chemokine receptors, regulation by interleukin 2, 569
CD4 and CD8 T cell compartments, tolerance status in transgenic mice expressing the murine H-$2K^b$ major histocompatibility complex class I gene exclusively in lymphoid cells, 1573
CD4 T cells, microglia regulate responses of, incomplete activation by microglia, 1737
$CD4^+$, $NK1.1^+$ cells, play role as alternative interleukin 2–secreting helper cells in T helper cell 1 (Th1)–mediated host resistance to infection, 131
$CD4^+$ T cells
  absence of and progressive loss of $CD8^+$ T cell control, 863
  differentiation into T helper 1 and 2 cells, 473
  essential for development of experimental autoimmune myasthenia gravis, 349
  expressing nontransgenic α and β chain T cell receptors, increase and are mostly of the memory phenotype in aged mice, 1891

maturation into peripheral T cell repertoire through sequestration of self-antigens and major histocompatibility class II molecules, 1573
mediate colitis in interleukin $10^{-/-}$ mice, 241
required for allorejection, 2013
$CD4^+CD8^-$ thymocytes, role in autoimmune diabetes prevention in lymphopenic animals, 2393
CD5
as potential selecting ligand for B cell receptor surface immunoglobulin framework sequences, interaction with $F(ab')_2$ fragments, inhibition of interaction with $F(ab')_2$ fragments, interaction with V_H framework region structures and autostimulatory growth of autoimmune cells, interaction with B cell surface immunoglobulin as promoting factor in evolution of autoimmune cells, 1279
role in regulating immune responses, 811
CD5 ligand, expressed on the surface of activated splenocytes, 811
CD5 receptorglobulin, prevention of antibody-mediated glomerulonephritis in vivo, 811
CD5–CD5 ligand interaction, in lymphocyte activation, role of T–B cell costimulation in vivo, 811
CD8
interactions with major histocompatibility complex class I in cytotoxic T lymphocyte activation, coreceptor vs. avidity-enhanced functions, 1671
peanut agglutinin binding of, 759
significant contribution to inhibitory signal, 485
CD8 cells, mediate peripheral tolerance to specific antigenic determinants, depletion overcomes peripheral tolerance to specific antigenic determinants, 1037
CD8 γδ T cells, induction by aerosol insulin, 2167
$CD8^+$ cytotoxic T lymphocytes, Epstein-Barr virus–specific response in infectious mononucleosis, 1801
$CD8^+$ lymphocyte effectors, capable of mediating partial protection against intracellular infection through interferon γ secretion, 131
$CD8^+$ T cells
essential for development of experimental autoimmune myasthenia gravis, 349
lack of control of γ-herpesvirus in the absence of $CD4^+$ T cells, 863
not required for allorejection, 2013
partial signaling by, in response to antagonist ligands, 149
presentation of self-antigens, recognition of foreign antigens, 923
their rapid killing of antigen-presenting cells prevents interaction with other T cells and reduces cytokine synthesis, self-limitation of cytokine synthesis resulting from cytotoxicity via the alternate Fas pathway, function regulated by cytotoxicity–cytokine synthesis relationship, some responses dependent on $CD4^+$ cells, 1543
target antigen-specific B cells for regulation, 1179
CD8α, high levels in thymic and splenic dendritic cell progeny of early thymic precursors, as marker of dendritic cell lineage derived from early T cell precursors, 903
CD8α/α, efficiency compared to CD8α/β, 2439
CD8α/β, efficiency compared to CD8α/α, strengthens T cell receptor–ligand binding, 2439
CD8β, role in T cell function, increases CD8 coreceptor function, participation in T cell receptor–ligand binding, 2439
CD9, role in T cell activation, 753
$CD25^+$
T cells, peripheral, role in production of autoimmunity, 387
transition to $CD25^-$ double negative thymocytes, 519
CD27, cooperation with CD70, in T cell development, 675
CD28
role in T helper cell maturation, 803
signaling, stabilizes IL-2 mRNA posttranscriptionally, 1
simultaneous ligation with T cell receptor, 365
CD28/CTLA-4, interaction with B7-1/B7-2 mediates glucocorticoid-induced apoptosis, 1631
CD28-mediated costimulation of T helper 1 and 2 subsets in vivo, requirements of, 803
CD31, interaction with heterophilic counterreceptor on T lymphocytes, interferes with positive regulatory pathway of T cell activation, 41
$CD34^+$ cells, interleukin 6 receptor and gp130 expression in, proliferative capability of, 1357
$CD34^+$ hematopoietic progenitor cells, suppressed growth by monocyte- and T lymphocyte–depleted accessory bone marrow cells, 1305
$CD34^+$ hematopoietic progenitors, differentiation of, 695
CD40, induces interleukin 12 production in dendritic cells, 741
CD40 ligand
induces CD44H costimulation of T cell proliferation via a CD28-independent mechanism, 955
induces transient increases in E-selectin and vascular cell adhesion molecule-1, 173
CD40 ligation
blast cells activated by, remain unaltered by anti-IgM, 113
by CD40L, induces production of high levels of interleukin 12, 747
CD44H, induced by CD40 ligand as costimulator of T cell proliferation via a CD28-independent mechanism, 955
CD70, cooperation with CD27, in T cell development, 675
CD81, expression on thymocytes, influence on thymocyte adhesion and activation, antibody ligation on thymocytes, 2055
CD95 (Apo/Fas) receptor/ligand system, involvement in multiple sclerosis lesion pathogenesis, 1513
CD97, interaction with decay accelerating factor (CD55) and implication of novel adhesion pathway for primed leukocytes, 1185
CD97 ligand, binds decay accelerating factor (CD55), 1185
$C/EBP\beta^{-/-}$ mice, interleukin 6 responsible for the development of multicentric Castleman's disease in, 1561
Cell adhesion, release of integrin-mediated cell adhesion, 1213
Cell cycle, regulation, in B lymphocytes, 407
Cell death
activation induced, 485
peptide/major histocompatibility complex–induced, in thymus, 305
Cell traffic, between cortex and medulla of thymus, regulated by novel very late antigen (VLA)4 and VLA5/fibronectin–mediated pathway, 215
Cell–cell interface, T cell receptor–ligand reactions at, 777
Ceramides, modulate antigen uptake and presentation by dendritic cells, capacity to perturb intracellular membrane trafficking, 2411
Cerebral malaria, excessive tumor necrosis factor production contributes to, 557
c-*fos*, mitogen-activated protein kinase necessary for inducing mRNA expression of, 1027
c-*fos* transcription
induced by Ca^{2+}/calmodulin–dependent protein kinase type IV/Gr via a serum response factor–dependent mechanism, 101
induced by platelet-activating factor, 191
Chemokine coreceptors, as mediators of human immunodeficiency virus-1 entry into dendritic cells, 2433
Chemokine function, blockage of and effect on inflammatory response, 799
Chemokine receptor
expression on T cells, role in T cell trafficking, 799
selective for IP-10 and Mig, 963
Chemokines, involvement in human immunodeficiency virus–1 pathogenesis, 311
Cholera toxin
B, conditions for binding to ganglioside G_{M1} on M cells and enterocytes, 1045
induces stem cell factor production in mouse ligated intestinal loops, 271
Chronic central nervous system autoimmune disease, induction by infection with a virus sharing epitopes with a protein expressed in oligodendrocytes, enhanced by a second infection with the same or unrelated virus, 2371
Chronic granulomatosus disease, caused by disturbed interaction of p21-*rac* with mutated p67-*phox*, 1243
Chronic myelomonocytic leukemia cells, growth inhibited by interleukin 10
c-jun, transcription, induced by platelet-activating factor, 191
c-kit
cell type–specific regulation by protein tyrosine phosphatase SHP1, role of SHP1 in signaling of, genetic interaction with SHP1, 1111
interaction with stem cell factor, in intestinal tract response to *Salmonella typhimurium* infection, 271
$c\text{-}kit^+$, stem cells, in livers of adult mice, 687
CKR-5 receptor, second human immunodeficiency virus–1 second receptor, 311
Class I antigen, presentation by B cells, 1179
Class I major histocompatibility class complex–specific inhibition, role of Ly49 natural killer cell receptors in, 2037
Class I molecules, prolonged association with endoplasmic reticulum peptide transporter TAP, 337
Class II major histocompatibility complex molecules (empty), stabilization of facilitates antigen processing, 2153
Class II–associated invariant chain peptides
primary function redefined, maintains structural integrity of class II molecules, occupancy of class II binding site promotes effective export of class II molecules useful for endocytic peptide acquisition, 2061
prolonged HLA-DM association with major histocompatibility complex class II dimers after dissociation of, 2153

Cleavage
of DNA-dependent protein kinase, in cytotoxic T cell killing, 619
proteolytic, by interleukin 1β–converting enzyme, 717
selective, of nuclear autoantigens, in CD95-mediated T cell apoptosis, 765
CNLAC1, laccase gene, effect on virulence of *Cryptococcus neoformans*, 377
Coexpression, of B7-1 and intercellular adhesion molecule-1, in thymocytes, 531
Coligation, of CD31 and FcγRs on monocytes, induces oxidative responses and release of inflammatory cytokines, 41
Colitis, in interleukin 10–deficient mice, is mediated by T helper cell 1–type $CD4^+$ T cells, 241
Colony-forming units in culture, balance between self-renewal and differentiation regulated by extracellular signals, 2301
Combinatorial peptide libraries, to construct functional mimics of tumor epitopes recognized by major histocompatibility complex class I–restricted cytolytic T lymphocytes, 121
Complement protein C5b, binds to sialylated molecules on the erythrocyte surface, 1225
Complement protein C5b-7, interaction with erythrocyte membrane sialic acid, 1225
Complement receptor
mediates phagocytosis, 627
in phagocytosis of *Mycobacterium tuberculosis*, 585
Complement-deficient mice, immunoglobulin G–mediated inflammatory responses in, 2385
Con A, costimulation with tumor necrosis factor, increases [^{3}H] thymidine uptake by baboon thymocytes in dose-dependent manner, 165
Conformational variation, of peptide/major histocompatibility complex, 253
Contact hypersensitivity, response in L-selectin–deficient mice, 2341
Contact sensitivity, cells responsible for the elicitation and downregulation of, 2129
Costimulation
B7-mediated, prevents anergy, 365
by CD9, of T cell activation, CD28-independent, 753
Counterreceptor, heterophilic, interaction of CD31 with, directly signals T cells to downregulate immune function, 41
CPP32-like protease, inhibition of intracellular activation by tripeptide injection in the prevention of Fas-mediated liver death, 2067
CR3-mediated adhesion, novel mechanism for control of, 1213
c-Rel, regulation of interleukin 2 gene expression mediated through AP-1 activation, 1663
c-*rel*–deficient mice, lack of interleukin 2 expression in, effect on interleukin 2 gene activation in, 1663
Cross-protection, between 3-methylcholanthrene sarcomas, 441
Cross-reactivity, humoral, to human manganese superoxide dismutase and *Aspergillus fumigatus* superoxide dismutase, 265
Cryptic epitope expression, mechanism and potential of, confirmed through controlled genetic change to influenza A PR/8/34 nucleoprotein gene, 1319
Cryptic epitope translation, mechanism for supplying substrate to the major histocompatibility class I antigen processing and presentation pathway, 1319
Cryptococcus neoformans, virulence of, 377
Cryptopatches, newly identified gut lymphoid tissues where development of T and/or B lympho-hemopoietic progenitors takes place, development of, distinguished by colonization with lymphoid cells expressing c-kit, interleukin 7 receptors, and Thy1, distinct from Peyer's patches, isolated lymphoid follicles, and peripheral lymph nodes in terms of histogenesis, 1449
CTLA-4, in regulation of autoimmune disease, 783
Cyclosporin A, targets nuclear factor of activated T cells, 141
Cysteine protease CPP32, cleaves protein kinase C δ to a catalytically active fragment, 2399
Cysteine proteinase, of *Streptococcus pyogenes*, releases kinins, 665
Cytokine expression, by natural killer cells, suppressed by interleukin 10, 579
Cytokine production, role of mitogen-activated protein kinase in, 1027
Cytokines
mechanisms of localized immunoprotection mediated by, 1597
proinflammatory, secretion of, inhibited by interleukin 10, 579
synthesis reduced by rapid killing of antigen-presenting cells by $CD8^+$ cells, increased synthesis and proliferation in perforin-deficient $CD8^+$ cells, 1543
transcriptional events, during T helper cell subset differentiation, 397
Cytolysis, cytotoxic T cell–mediated, 619
Cytoskeletal proteins, association with phagosomes, 627
Cytotoxic T lymphocyte expression, mechanism encoded in alternative reading frames, 1319
Cytotoxic T lymphocyte memory, within mucosal immune compartments of AdgB8-immunized mice, short-term not dependent on route of antigen exposure, long-term dependent on route of immunization, 1879
Cytotoxic T lymphocyte response (after naked plasmid DNA vaccination), involves the major histocompatibility complex from the bone marrow–derived antigen-presenting cells, 1555
Cytotoxic T lymphocytes
alloreactive, 735
CD8–major histocompatibility class I interactions in activation of, Glu227 Lys substitution in the acidic loop of major histocompatibility complex α3 domain distinguishes CD8 coreceptor and avidity-enhanced CD8 accessory functions in, 1671
demonstrate Epstein-Barr virus–specific $CD8^+$ response in infectious mononucleosis, Epstein-Barr virus–specific effectors during primary response, 1801
effector, apoptosis of, 485
immunoselection, 441
induction by pulsation of dendritic cells with tumor-derived RNA, 465
γδ, positive selection by TL antigen expressed in the thymus, 2175
response to epitope MART-$1_{(27–35)}$, 647
Cytotoxicity, T cell–mediated, 765
Cytotrophoblasts, production of immunosuppressive cytokine interleukin 10 by, 539
Dμ, expression is not selected against in developing B cells of immunoglobulin β mutant mice, molecular mechanism for counterselection against, interaction with immunoglobulin α–immunoglobulin β signal transducers, 2079
"Death domain," of p55 tumor necrosis factor receptor, role in cytotoxicity, 725
Decay accelerating factor (CD55), interaction with CD97 and attraction of activated leukocytes to graft cite, 1185
Deletion, of $CD4^+CD8^+$ thymocytes, 305
Dendritic cell development, two independent pathways of, 695
Dendritic cell networks, role of tumor necrosis factor α in the development of, 1385
Dendritic cells
activation by T lymphocytes, 747
ceramides modulate antigen uptake and presentation by, respond to CD40 ligand, tumor necrosis factor α, and interleukin 1β with intracellular ceramide accumulation, 2411
development from thymic lymphoid precursor cells induced by cytokine cocktail, development in the absence of granulocyte/macrophage colony–stimulating factor, 2185
functionally mature, dramatic increase in lymphoid and nonlymphoid tissue of Flt3 ligand–treated mice, 1953
human immunodeficiency virus-1 forms early transcripts in, specific chemokines block the entry of human immunodeficiency virus-1 into, 2433
maturation in vivo in response to lipopolysaccharide, migration from marginal zone to T cell areas induced by lipopolysaccharide administration, function regulated by microbial products, loss of dendritic cells after activation with, migration and maturation result in colocalization of potent dendritic cells and T lymphocytes, 1413
produce high level interleukin 12, 741
produce interleukin 12, 747
rapid recruitment into airway epithelium during inflammatory response, 2429
RNA pulsed, 465
Deviation, immune, of intestinal intraepithelial lymphocytes, 493
Diabetes
nonobese diabetic mice immunized with soluble BDC 2.5 T cell receptor against the adoptive transfer of, 1755
prevention by transgene-encoded tumor necrosis factor α in islets, 1963
Diabetes mellitus, insulin-dependent
alteration of pathogenesis in congenic stock of B lymphocyte–deficient NOD.*Igμ^{null}* mice, 2049
effect of tumor necrosis factor α on, 1963
prevented by aerosol insulin–induced regulatory CD8 γδ T cells, 2167
Differentiation
B cell, related to division cycle number, 277
of bipotential T/natural killer progenitor cells, differentially affected by interleukin 15 and interleukin 2, 325
of $CD34^+$ hematopoietic progenitors, 695
T helper cell subset, molecular basis for cytokine expression in, 397
Division cycle number, related to B cell differentiation, 277
DM, functions as general catalyst for peptide release from DR, factors that determine the catalytic action of, 2019
DM proteins, function not restricted to removal of class II–associated peptide, edit self-peptide presentation by major histocompatibility complex class II molecules, reduce cell surface expression of particular peptide–class II complexes, 1747

DNA-binding domains, highly conserved, mediate cooperation of nuclear factor of activated T cells–family proteins with Fos and Jun in nucleus, 141
DNA-dependent protein kinase, cleaved by interleukin-1β–converting enzyme-like protease, in cytotoxic T cell killing, 619
Double-negative DO-TCR$^+$ T cells, not in the CD4-expressing lineage, 1619
D^b-restricted epitopes, recognized by EL4-specific cytolytic T lymphocytes, 121
Duffy blood group antigen, contains epitope that blocks binding of Duffy-positive erythrocytes to *Plasmodium vivax* region II, 35–amino acid peptide from its extracellular portion blocks binding of Duffy-positive erythrocytes to region II of the Duffy-binding proteins of *Plasmodium vivax* and *Plasmodium knowlesi*, 1531
Dystrophin complex, assembly of, depends on structure of central rodlike domain, 609
Emigration
  of mononuclear cells or eosinophils, promoted by interleukin 4 during chronic or allergic inflammation, 81
  of neutrophils during pneumonia, 639
Endoplasmic reticulum, retention of peptide-deficient class I molecules in, 337
Endothelial cells
  activation, by tumor necrosis factor, interleukin 1, and CD40 ligand, 173
  homologous desensitization, by CD40 ligand, tumor necrosis factor, and interleukin 1, 173
  role of heparan sulfate proteoglycan in integrin-mediated leukemic cell adhesion to, 1987
Endotoxin, neutralized by reconstituted high density lipoprotein, 1601
Enteric bacteria, in appendix, 707
Eosinophilia, *Schistosoma mansoni* egg–induced interleukin 5–dependent, directly produces interleukin 4, 1871
Eotaxin, regulated in vivo by antigen-specific T cells, regulates pulmonary eosinophilia, a molecular link between antigen-specific T cell activation and recruitment of eosinophils into airways, 1461
Epithelial cells
  bone marrow–derived, induce tolerance to major histocompatibility complex, 305
  as director of leukocyte trafficking during intestinal/ischemia reperfusion, production included by hypoxia, 1003
Epitope production, initiation codon readthrough as likely mechanism
Epitopes
  self- and pathogen-derived during thymic selection, 1319
  tumor, functional mimics of, recognized by major histocompatibility complex class I–restricted cytolytic T lymphocytes, 121
Epstein-Barr virus
  development of Epstein-Barr virus–specific memory T cell receptor clonotypes, 1815
  direct contribution to chronic rheumatoid arthritis pathogenesis, 1791
  primary responses by cytotoxic T lymphocytes, effectors specific to, 1801
  Vβ-restricted T cell activation after infection, early events in immune system after exposure, 971
Erythrocyte membrane sialic acid, paradoxical role in complement attack, inhibits generation of C566, enhances complement lysis, interaction with complement protein C5b-7, 1225
Escherichia coli
  T cell receptor Vα domain expressed as inclusion body in, 1251
  type 3 polysaccharide biosynthesis in, 449
E-selectin, in cultured human dermal microvascular cells, in human umbilical vein endothelial cells, expression induced by interleukin 10, 821
Ets protein, Spi-B, expressed exclusively in B cells and T cells, 203
Experimental allergic encephalomyelitis, resistance/susceptibility to, 771
Experimental autoimmune encephalitis, induced in B cell–deficient mice, role of B cells in the regulation of, 2271
Experimental autoimmune encephalomyelitis, induced by inactivation of T cell receptor peptide–specific regulatory CD4$^+$ T cells, 1609
Experimental autoimmune thyroiditis, association with HLA-DR3 gene, disassociation with HLA-DR2 gene, induced in HLA-DR3 (DRB*0301) transgenic mice immunized with human or mouse thyroglobulin, DRB1 polymorphism as determining factor in susceptibility to, 1167
Expression
  differential, of Fas and Fas ligand, on normal human phagocytes, 429
  of Spi-B, in B cells and T cells, tightly regulated during development, 203
Extravasation, leukocyte, platelet-endothelial cell adhesion molecule-1 mediates interleukin 1β induction of, 229
F(ab′)$_2$ fragments, interaction with CD5, 1279
Fas
  CD95, tumor suppressor function in T cell–deficient mice, 1149
  signaling in oligodendrocyte injury/death and myelination in multiple sclerosis, selectively regulated on oligodendrocytes in multiple sclerosis lesions, 2361
Fas^{high} CD4$^+$ synovial T cells, apoptosis by *Borriela*-reactive Fas-ligand^{high} γδ T cells in Lyme arthritis, 2109
Fas deficiency, impairment of Fas-mediated apoptosis and alteration of antigen receptor signaling in, 831
Fas ligand, widely present on glial cells in many chronic multiple sclerosis plaques, targets Fas ligand receptor–carrying cells in multiple sclerosis lesions, 1513
Fas pathway, autologous stimulation aggravates lymphopenia in human immunodeficiency virus-1–infected patients, autoantibody activation enhances T cell apoptosis in human immunodeficiency virus-1–infected patients, 2287
Fas-dependent cytotoxicity, role in tumor surveillance, 1781
Fas/Fas ligand pathway, mediator of apoptosis, 429
Fas-mediated apoptosis, impairment in Fas-deficient mice, 831
Fas-mediated liver death, prevention by injection of a tripeptide and a specific inhibitor of interleukin 1β–converting enzyme–like proteases, 2067
Fcγ receptor IIB, has positive regulatory effect on anti-IgM–induced growth arrest and cell death of activated B cells, 113
FcR, useful marker in isolating the most immature population of murine fetal thymic cells, 1901
FcR$^-$ cells, include progenitors capable of generating T, B, and myeloid cells, 1901
FcR$^+$ fetal thymus cells, represent T lineage cells, 1901
FcγR receptors, cell-based, activation required for antibody-triggered murine inflammatory responses, 2385
FcγR$^+$ target cells, augmented lysis of, 2119
FcεRI, aggregation on mast cells, results in rapid tyrosine phosphorylation and activation of Syk, 71
FcεRIγ, function in thymocyte development, 1725
FcεRIγ transgenic mice, delayed natural killer and T cell development in, 1725
FcεRIζ, function in thymocyte development, 1725
Fibroblasts
  activation by platelet-activating factor, 191
  human lung, express platelet-activating factor receptor mRNA and protein, 191
Fibronectin, interaction of mature CD3^{hi}CD69^{hi} thymic subsets with, triggers migration rather than firm adhesion, 215
Flt3 ligand, generates functionally mature dendritic cells in lymphoid and nonlymphoid tissue in vivo, 1953
Focal adhesion kinase B, functional coassociation with ZAP-70 tyrosine kinase, 873
Fos, cooperation in nucleus with nuclear factor of activated T cells–family proteins important component of transactivation, 141
Free class I heavy chains, monoclonal antibodies against, 2251
Furin, role in viral superantigen 7 activation, viral superantigen 7 largely unprocessed in its absence, 1549
Ganglioside G$_{M1}$, conditions for accessibility by cholera toxin B, 1045
Gardella gels, differential migration of Kaposi sarcoma (KS)–associated herpesvirus DNA sequences in, 283
Gastrointestinal tract, maintenance of immunological integrity, 1203
Germinal center
  formation in the lung after airway antigenic challenge, 2353
  impairment of formation, role of tumor necrosis factor–tumor necrosis receptor factor in the development of, 1207
  role of tumor necrosis factor α in the development of, 1385
Germinal center B cells
  Hodgkin and Reed-Sternberg cell precursor, 1496
  precursor of Hodgkin and Reed-Sternberg cell, 1496
Glomerulonephritis, effect of CD5 receptorglobulin on, 811
GlyCAM-1, activates β2 integrins on naive lymphocytes, 1344
Gonococcal strains, conservation of *lgt* locus among, alteration of the *lgt* locus in strain 15253, strain 15253 contains two *lgt* genes, 1233
gp130, ubiquitous expression in CD34$^+$ cells, 1357
Graft-versus-host disease, role of interleukin 10 in preventing, 19
Granulated metrial gland cells, role of interleukin 15 in regulating the differentiation of, 2405
Granulocyte/macrophage colony–stimulating factor
  dendritic cell development in the absence of, 2185
  release suppressed by interleukin 10, 1377
Granzyme B, activates interleukin-1β–converting enzyme-like protease to cleave DNA-protein kinases, 619
Granzymes, interleukin 15 induces expression in pregnant uterine tissues, 2405
H chains, mouse, bind to calnexin, 337

Heat stable antigen, role in B cell development, induces apoptosis in B cell precursors, suppresses anti-CD40–induced proliferation of mature splenic B cells, 1639
HEL 74–96, induction of strong T cell response toward, 1037
Hematopoiesis, supported by antileukoproteinase in vivo, role of proteinase inhibitors in the in vitro growth of, 1305
Hematopoietic lineages, PU.1 expressed in all except T cell, 203
Hematopoietic progenitor cells, intergenic complementation between loci, 1111
Hematopoietic progenitors, preferential proliferation of, 2301
Heparan sulfate proteoglycan
expressed on the surface of adult T cell leukemia cells, role in integrin triggering, induces integrin-mediated leukemic cell adhesion to endothelial cells, 1987
malaria circumsporozite protein interaction with, as part of dual heparan sulfate proteoglycan and low density lipoprotein receptor system that may mediate malaria circumsporozite invasion, 1699
Heparin-binding hemagglutinin, in mycobacteria, as mediator of bacteria–epithelial cell interactions, as inducer of mycobacterial autoaggression, as promoter of mycobacterial colonization at pathogen–host attachment site, 993
Hepatocyte heparan sulfate proteoglycans, mediate clearance of remnant lipoproteins and malaria sporozites from blood, 945
Hepatocytes, remnant lipoproteins inhibit malaria sporozite invasion of, 945
Hereditary hemachromatosis, causative role of HLA-H mutations in, 1975
Herpes simplex virus, site-specific reactivation phenotypes, 659
γ-herpesvirus, control by $CD8^+$ cells, activation by absence of $CD4^+$ T cells, 863
Histamine, selectively enhances human immunoglobulin (Ig) E and G4 production, 357
HLA class I, recognition by killer cell inhibitory receptor blocks formation of a pp36/phospholipase C-γ signaling complex in human natural killer cells, 2243
HLA complexes, structural differences between, 2279
HLA-A*0201, process and present mimicry peptides, 647
HLA-B8, antagonist human immunodeficiency virus-1 gag peptides induce structural changes in, 2279
HLA-B*2705 molecule, vaccinia virus–mediated expression of killer cell inhibitory receptor-11 in natural killer cell clones results in inhibition by, single killer cell inhibitory receptor specific for several HLA-B allotypes recognizes a subset of peptides bound to, 1585
HLA-B–specific killer cell inhibitory receptor, peptide discrimination by, 1585
HLA-DM
edits peptides presented by HLA-DR according to their ligand-binding motifs, peptide–DR complexes that are preferential substrates for the catalytic action of, 2019
role in stabilizing empty HLA-DR molecules, interactions with intermediates in HLA-DR maturation, in vivo association with HLA-DR αβ dimers, interaction with HLA-DR molecules, promotes binding of antigenic peptides, HLA-DM–class II major histocompatibility complex molecules, 2153
HLA-DR αβ dimers, association with HLA-DM in vivo, 2153
HLA-DR3 gene, role in susceptibility to experimental autoimmune thyroiditis, 1167
HLA-H, causative role for mutations in hereditary hemachromatosis, 1975
Hodgkin and Reed-Sternberg cells, lineage derivation and clonal origin of, germinal center B cell as precursor of, represent outgrowth of dominant tumor clone derived from germinal center B cells, represent clonal population of B lineage cells, 1496
Hodgkin's disease, Hodgkin and Reed-Sternberg cells represent outgrowth of dominant tumor clone derived from germinal center B cells, 1496
Human bone marrow B lymphocyte precursors, ordering of, by single-cell polymerase chain reaction analyses of rearrangement status of immunoglobin H and L chain gene loci, 2217
Human endotoxemia, antiinflammatory effects of reconstituted high density lipoprotein during, 1601
Human hematopoietic stem/progenitor cells, mechanisms controlling the development of, 1357
Human histocompatibility leukocyte antigen C, recognition by natural killer cells, 913
Human histocompatibility leukocyte antigen (HLA)-B*4601, inter-locus recombinant, 735
Human immunodeficiency virus-1
antagonist gag peptides induce structural changes in HLA-B8, 2279
formation of early transcripts in dendritic cells vs. T cells, entry into dendritic cells blocked by specific chemokines, 2433
-infected patients, anti-Fas antibodies in, cross-linking of Fas by antibodies to a domain of the gp120V3 loop enhances T cell apoptosis in, 2287
suppression of replication in $CD4^+$ T cells, 311
Human immunodeficiency virus–positive, Kaposi sarcoma patients, biopsies of, 283
Human immunoglobulin E, its two membrane isoforms assemble into distinct B cell receptors, comparison between its two membrane isoforms, 2197
Human leukocyte antigen (HLA)-A, receptor specific for, 505
Human leukocyte elastase, as ligand for integrin CR3, as modulator of polymorphonuclear leukocyte adhesion, 1213
Hypoxia
and apoptosis, 717
modulates polymorphonuclear leukocyte–epithelial interactions, induces epithelial production and basolateral secretion of interleukin 8, 1003
Hypoxia/reoxygenation, provides stimulus for polymorphonuclear leukocyte–epithelial interaction, 1003
ICE/Ced3 proteases, how inhibition prevents apoptotic mitochondrial transmembrane potential, 1155
Igλ 2-4 enhancer, Spi-B and PU.1 function as transcriptional activator of, 203
IgG1, surface, expression of, correlates with cell division number, 277
$IL\text{-}4^{-/-}$ mice, show elevated serum levels of immunoglobulin E in response to murine acquired immunodeficiency syndrome, immunoglobulin E switching induced in, 1651
Immune responses
route of antigen entry determines requirement for L-selectin during, 2341
T cell–mediated, CD31 expressed on surface of leukocytes directly participates in development of, 41
Immune system
early events after exposure to Epstein-Barr virus, 971
role of tumor necrosis factor α in the development and physiology of, 1385
Immune system development, roles of lymphotoxin α/β and tumor necrosis factor in, 1999
Immunization, with defined tumor antigens, 465
Immuno tyrosine-based activatory motif (ITAM)-like sequence, in cytoplasmic tail of new member of immunoglobulin (Ig) superfamily, 505
Immunoglobin H and L chain gene loci, single-cell polymerase chain reaction analyses of, in ordering of human bone marrow B lymphocyte precursors, 2217
Immunoglobulin, histamine differentially modulates, 357
Immunoglobulin E
increased production in transgenic mice overexpressing natural killer 1 T cells, 1285
novel interleukin 4–independent pathway for class switching, elevated serum levels in $IL\text{-}4^{-/-}$ mice infected with murine acquired immunodeficiency syndrome, switching in $IL\text{-}4^{-/-}$ mice induced, 1651
production in the lung after airway antigenic challenge, 2353
Immunoglobulin E and G4, production enhanced by histamine, 357
Immunoglobulin E receptor (FcεRI), controls Cbl tyrosine phosphorylation, 1713
Immunoglobulin G, role of complement in inflammation triggered by, 2385
Immunoglobulin G beads, association with cytoskeleton, 627
Immunoglobulin α–immunoglobulin β signal transducers, role in counterselection against Dμ, interaction with Dμ, 2079
Immunoselection, cytotoxic T lymphocyte, 441
Immunosuppression, role of interleukin 10 in, 539
Inducible nitric oxide synthase, expression in psoriatic lesions and cultured keratinocytes, link to neutrophil inflammation in psoriasis, 2007
Infectious mononucleosis
development of Epstein-Barr virus–specific memory T cell receptor clonotypes in, antigen-specific T cell receptor development in, 1815
Epstein-Barr virus–specific $CD8^+$ cytotoxic T lymphocyte response in, 1801
Inflammation
and p75 receptor agonist, 165
role of complement in immunoglobulin G–triggered, 2385
Inflammatory bowel disease
in interleukin $10^{-/-}$ mice, is mediated by helper cell 1–type $CD4^+$ T cells, 241
role of appendix in, 707
Inflammatory capacity, net, of shock plasmas, depleted of interleukin 10, 51

Influenza A infection, selective CC-chemokine production in, expression and regulation of chemokines, rapid expression of mononuclear cell attracting CC-chemokine genes after infection, suppressed neutrophil CXC-chemoattraction after infection, 1191
Inhibitory receptors, natural killer cell, photyrosine phosphatase 1C is cytosolic component of negative signaling pathway through, 93
Initiation codon readthrough, as likely mechanism of epitope production, 1319
Insulin receptors, autoantibody binding to, on human lymphocytes, 315
Insulin-dependent diabetes mellitus
  alteration of pathogenesis in congenic stock of B lymphocyte–deficient NOD.*Igμ*^{null} mice, 2049
  effect of tumor necrosis factor α on, 1963
  prevented by aerosol insulin–induced regulatory CD8 γδ T cells, 2167
Insulitis, abrogation in nonobese diabetic mice by pancreatic interleukin 4 expression, 1093
Integrin
  CR3, human leukocyte elastase as ligand for, 1213
  β1 integrin–mediated signaling pathways, roles of pp105/Cas-L and pp125FAK in, involvement of Crk, Nck, and SHPTP2 in the downstream pathways of, 1365
  β2, enhanced function in naive T cells, 1344
  role of heparan sulfate proteoglycan in triggering, mediates adhesion of leukemic cells to endothelial cells, 1987
Integrin-mediated cell–cell adhesion, induction of by antibody ligation CD81 on thymocytes, 2055
Integrin–mediated signaling pathways, β1, roles of pp105/Cas-L and pp125FAK in, involvement of Crk, Nck, and SHPTP2 in the downstream pathways of, 1365
Intercellular adhesion molecule-1, in negative selection of thymocytes, 531
Interferon γ
  defect in production of, 771
  in development of experimental autoimmune myasthenia gravis, 349
  mediates necrosis in ilea, 597
  production by Th1 cells, 473
  regulates neutrophil extravasation, contributes to herpes simplex virus-1–induced corneal inflammation by facilitating polymorphonuclear leukocyte infiltration, in vivo proinflammatory functions of, regulation of platelet endothelial cell adhesion molecule expression on vascular endothelium in vivo, 1436
Interferon γ–inducible protein 10, as exogenous angiostatic factor in non–small cell lung cancer, neutralization and augmented tumor growth, elevated levels in squamous cell carcinoma samples, inverse relationship with tumor vasculature, 981
Interferon regulatory factor-1, role in natural killer cell function, absence of leads to defective natural killer cell cytolytic activity, 2043
Interleukin 1, induces transient increases in E-selectin and vascular cell adhesion molecule-1, 173
Interleukin 1β (IL-1β), functional role in IL-1β–converting enzyme–mediated apoptosis, 717
Interleukin 1β–converting enzyme family proteases, role in apoptotic T cell death, different members involved in T cell apoptosis at different stages of differentiation, inhibitors that block apoptotic T cell death, 2445
Interleukin-1β–converting enzyme-like protease
  cleaves DNA-dependent protein kinase, 619
  inhibition of intracellular activation in the prevention of Fas-mediated liver death, 2067
Interleukin 2
  differentially affects differentiation of bipotential T/natural killer progenitor cells, 325
  expression lacking in c-*rel*–deficient mice, gene activation in c-*rel*–deficient mice, AP-1 activation as mediator of c-Rel regulation of, 1663
  expression in T helper (Th) 1 and 2 cells, 397
  gene transcription, Ca^{2+}/calmodulin–dependent protein kinase type IV/Gr important in promoting, 101
  mRNA, translational control of, may be molecular mechanism for attainment of anergy, 159
  stimulation with, upregulates CKR-1 and CKR-2, 311
Interleukin 2Rα chain, upregulation by primed $CD8^+$ T cells vs. by naive $CD8^+$ T cells, 2141
Interleukin 4
  and 10, downregulate interleukin 12 production by dendritic cells, 741
  and 12, induce differentiation into Th1 and 2 subsets, 473
  immunoglobulin E switching independent of, 1651
  increased production in transgenic mice overexpressing natural killer 1 T cells, 1285
  induces immunoglobulin (Ig) E and G4 production, 357
  induces prolonged increase in P-selectin mRNA and protein in human endothelial cells, 81
  pancreatic expression, ability to prevent autoimmunity and destructive autoreactivity in nonobese diabetic mice, 1093
  promotes B cell entry into G1 but not S phase, 407
  Schistosoma mansoni egg–induced production depends on interleukin 5 and eosinophils, 1871
Interleukin 5 (*Schistosoma mansoni* egg–induced), role in local eosinophilia and interleukin 4 production, 1871
Interleukin 6
  expression stimulated by platelet-activating factor in human lung fibroblasts, 191
  reversal of production by neutralizing prostaglandin E_2, 883
Interleukin 6 gene, inactivation prevents development of multicentric Castleman's disease in C/EBPβ-deficient mice, essential for the development of multicentric Castleman's disease in C/EBPβ-deficient mice, 1561
Interleukin 6 receptor, limited expression in $CD34^+$ cells, 1357
Interleukin 7 receptor, role in γδ T cell development, role in induction of T cell receptor γ gene rearrangement, 2423
Interleukin 7 receptor α (IL7Rα), required for development of γ δ^+ T cells but not for natural killer cells, 289
Interleukin 7 receptor α (IL7Rα)–deficient mice, development of natural killer cells and γ δ^+ T cells in, 289
Interleukin 7 receptor–deficient mice, V–J recombination of T cell receptor γ genes blocked in, 2423
Interleukin 8
  basolateral secretion induced by hypoxia, 1003
  costimulatory inducer for inducible nitric oxide synthase in cultured human keratinocytes, 2007
  expression stimulated by platelet-activating factor in human lung fibroblasts, 191
Interleukin 10
  and 4, downregulate interleukin 12 production by dendritic cells, 741
  deactivates monocytes in human shock plasma, 51
  human cytotrophoblast, contributes to maternal tolerance of allogeneic fetus, 539
  inducer of E-selectin expression in human dermal microvascular cells and human umbilical vein endothelial cells, recruitment signal for leukocyte migration in vivo, 821
  inhibits tumor metastasis, 579
  long-term T cell anergy induced by, 19
  placental, is immunosuppressive, 539
  suppresses endogenous granulocyte/macrophage colony–stimulating factor release, inhibits chronic myelomonocytic leukemia cell growth, effect on autonomous in vitro growth of mononuclear cells from patients with chronic myelomonocytic leukemia, lack of inhibitory effect on normal $CD34^+$ cells, 1377
Interleukin 12
  and 4, induce differentiation into Th1 and 2 subsets, 473
  high level, production by dendritic cells, 741
  production induced by CD40 ligation by CD40L, 747
  the immature subset of natural killer cells ($NKR\text{-}P1A^+/CD56^-/CD16^-$) differentiates into mature natural killer cells in the presence of interleukin 12, 1845
  therapeutic use in autoimmune disease, 771
Interleukin 13, fails to induce T cell differentiation, 473
Interleukin 15
  differentially affects differentiation of bipotential T/natural killer progenitor cells, 325
  role in regulating the differentiation of granulated metrial gland cells, induces expression of perforin and granzymes in pregnant uterine tissues, expression and function in the pregnant uterus, macrophages in the pregnant uterus may be responsible in production of, 2405
Intermolecular second-site reversion, provides evidence for peptide/major histocompatibility complex, 253
Intestinal cell glycocalyx, barrier function in limiting microbial adherence to membrane glycolipids, in cholera toxin B–mediated targeting of vaccine to M cells and the mucosal immune system, 1045
Intestinal intraepithelial lymphocytes, extrathymic origins of migration through thymus, 1203
Intestinal tract, responds to *Salmonella* infection with enhanced production of stem cell factor and subsequent interactions with c-kit, 271
Invariant chain, edits self-peptide presentation by major histocompatibility complex class II molecules, 1747
Invariant chain–independent major histocompatibility complex class II presentation, dileucine-based signal in the cytoplasmic tail of the class II beta chain critical for, 2251

IP-10/Mig receptor, involvement in the selective recruitment of effector T cells, restricted expression in activated T lymphocytes, 963
Iron homeostasis, β2-microglobulin–dependent gene product involved in, deficiency in $\beta 2m^{-/-}$ mice compared to that of hereditary hemachromatosis patients, involvement of major histocompatibility class I–like molecule in the regulation of, 1975
γ-irradiation, of *scid* mice, 419
Ischemia, neuronal cell death pathways following, mediated by mature interleukin 1β, 717
Isotype switching, B cell, related to division cycle number, 277
Jun, cooperation in nucleus with nuclear factor of activated T cells–family proteins important component of transactivation, 141
Jun NH_2-terminal kinase, may regulate E-selectin transcription, 173
Jurkat cells, cytoplasmic region of NKB1 inhibits T cell activation in, 295
Kaposi sarcoma–associated herpesvirus, present as intact latent genome in Kaposi sarcoma tissue, 283
Killer cell inhibitory receptors
  bind photyrosine phosphatase 1C upon tyrosine phosphorylation, 93
  inhibitory function in T cells, 295
  mediate inhibition of cytotoxicity, 789
  recognition of class I ligands blocks association of adaptor protein pp36 with phospholipase C-γ in natural killer cells, 2243
Kinases, protein tyrosine, differential association with T cell receptor, induces anergy, 365
Kininogens, cleavage to kinins, after administration of streptococcal cysteine proteinase or *Streptococcus pyogenes* bacteria, 665
Kinins, virulence mechanism, in *Streptococcus pyogenes*, 665
K^b-restricted epitopes, recognized by EL4-specific cytolytic T lymphocytes, 121
Laccase gene, effect on virulence of *Cryptococcus neoformans*, 377
Lactacystin, the 20S proteasomes from *Trypanosoma cruzi* as a target of, prevents development of *Trypanosoma cruzi* from amastigotes into trypomastigotes, prevents the transformation of *Trypanosoma cruzi* trypomastigotes into amastigote-like organisms, 1909
Langerhans cells
  pathway of dendritic cell development, 695
  role of endogenous transforming growth factor β1 in the biology of, 2417
Latency, of herpes simplex virus, 659
Latency-associated transcript region, herpes simplex virus, 659
lck, association with T cell receptor (TCR)ζ, 365
Leishmaniasis, in mice deficient for interleukin 4 and interferon γ receptor 1, 1127
LESTR, and CKR-5, role in activation state of $CD4^+$ T cells, 311
Leukemic cell adhesion, role of heparan sulfate proteoglycan in, 1987
Leukocyte, extravasation, platelet-endothelial cell adhesion molecule-1 in, 229
Leukocyte migration, interleukin 10 as recruitment signal for, 821
Leukosialin (CD43), interaction with major histocompatibility complex class I molecules involved in spontaneous T cell conjugate formation, 1769
Leukotriene inhibitors, antiinflammatory effect on allergic airway inflammation, 1484
Leukotrienes, role in allergic airway inflammation, role in mediating airway eosinophilia and hyperreactivity to methacholine, mediate mucus release and eosinophil infiltration of the airways but not airway hyperresponsiveness in late phase asthma response, 1484
Leupeptin, eliminates marginal presentation of viral superantigen 7 in furin-negative transfectants, 1549
lgt locus, conservation among gonococcal strains, alteration in gonococcal strain 15253, 1233
lgtA, one of two *lgt* genes in gonococcal strain 15253, encodes GlcNAC transferase and is subject to phase variation, 1233
lgtE, one of two *lgt* genes in gonococcal strain 15253, encodes galactosyl transferase required for elongating the α chain and completing the β chain, 15253
Ligands, extracellular, rate of acid release monitors metabolic responses to, 777
Ligation, of CD31 by monoclonal antibodies on T lymphocytes and myeloid cell types, upregulates adhesive functions of β_1 and β_2, respectively, 41
Light chains, required for a functional immunoglobulin signaling in early B cell development, 2025
Lineage commitment, in the thymus, molecular definition of, coincident with upregulation of T cell receptor and bcl-2, subpopulations of double-positive thymocytes that define the developmental progression of, 2091
Lipopolysaccharide
  regulate dendritic cell numbers and maturation in vivo, induces migration of most splenic dendritic cells from marginal zone to T cell areas, loss of dendritic cells after activation with, 1413
  synthesis in *Neisseria gonorrhea*, 1233
Liver, adult mouse, stem cells in, 687
Low density lipoprotein receptor–related protein, malaria circumsporozite protein interaction with, as part of dual heparan sulfate proteoglycan and low density lipoprotein receptor system that may mediate malaria circumsporozite invasion, 1699
lpr B cell lymphoma, in T cell–deficient mice, 1149
L-selectin
  ligation via GlyCAM-1 or antibody cross-linking enhances β2 integrin function in naive T cells but not memory T cells, 1344
  requirement during immune responses determined by route of antigen entry, role on effector populations, 2341
L-selectin–deficient mice, contact hypersensitivity response in, 2341
Lung, germinal center formation and local immunoglobulin E production after airway antigenic challenge, 2353
Lung allergic inflammation, role of mouse monocyte chemotactic protein-5 in, 1939
Lung cancer, non–small cell, inhibition by interferon γ–inducible protein 10, 981
Ly49A natural killer cell receptors, function and specificity of, transgenic expression prevents bone marrow allograft rejection, role in class I major histocompatibility complex–specific inhibition, regulate natural killer cell function in vivo, 2037
Ly-49C, B6 allelic form of, expression on B6 natural killer cells lower than on BALB/c natural killer cells, 2085
Ly-49C natural killer cells, heterogeneity among, 2085
$Ly\text{-}49D^+$ natural killer cells, monoclonal antibody 12A8 augments lysis of $Fc\gamma R^+$ target cells and induces apoptosis in, functional characteristics of, 2119
Ly-49D receptor, activates murine natural killer cells, cytoplasmic domain of, 2119
Lyme arthritis, apoptosis of Fas^{high} $CD4^+$ synovial T cells in, 2109
Lymphocyte chemoattractant, production in bone marrow stromal cell, identity with stromal cell–derived factor-1, 1101
Lymphocytes
  distribution in peripheral immune compartments, 1203
  inhibition of growth by anhydroretinol, 549
  intestinal intraepithelial, immune deviation of, 493
Lymphocytic choriomeningitis virus, peripheral infection of transgenic mice with, 2371
Lymphoid cells, abnormalities associated with protein tyrosine phosphatase 1C deficiency, 839
Lymphoid follicle, of appendix, site of cells involved in inflammatory bowel disease, 707
Lymphoid tissue, gut-associated, in development of chronic intestinal inflammation, 707
Lymphokine, T cell, production regulated by killer cell inhibitory receptor recognition, 789
Lymphopenia, aggravated by autologous stimulation of the Fas pathway in human immunodeficiency virus-1–infected patients, 2287
Lymphotoxin α, effects on development of lymphoid organs mediated by distinct receptors, 259
Lymphotoxin β receptor, possible role in lymph node development and formation of normal splenic architecture, 259
Lyn
  participation in B cell receptor signaling, 831
  preferentially interacts with β subunit of receptor, 71
Lysis, residue 80 controls natural killer cell–mediated lysis, 913
MA20, mouse antibody, RNA containing 2′-amino pyrimidines binds to, 315
Macrophage inflammatory proteins, T lymphocyte migration toward, 569
Macrophages
  bone marrow derived, transfected with antisense PU.1 expression construct, show decrease in proliferation compared with controls, 61
  and phagocytosis, 627
  role in the repair of peripheral nerve injury (axonal degeneration/regeneration), produce cytokines that may participate in the regulation of tissue inhibitor of matrix metalloproteinases during nerve repair, 2311
Major histocompatibility complex class I
  cytolytic T lymphocyte epitopes presented by, 121
  epitopes, presentation of, derived from exocytic proteins, 1319
  interactions with CD8 in cytotoxic T lymphocyte activation, Glu227 Lys substitution in the acidic loop α3 domain distinguishes CD8 coreceptor and avidity-enhanced CD8 accessory functions, 1671

Major histocompatibility class I–like molecule, involvement in the regulation of iron homeostasis, 1975
Major histocompatibility complex class I molecules, interaction with leukosialin (CD43) involved in spontaneous T cell conjugate formation, 1769
Major histocompatibility complex class II, striking correlation with aminopeptidase N expression on antigen presenting cells, 183
Major histocompatibility class II molecules induce interleukin 12 production in dendritic cells, 741
  invariant chain and DM proteins edit self-peptide presentation by, 1747
Major histocompatibility complex, role in susceptibility to experimental allergic encephalomyelitis, 771
Major histocompatibility complex free heavy chain–specific monoclonal antibodies, intermediates in the assembly and degradation of class I major histocompatibility complex molecules probed with, 2251
Major histocompatibility complex–peptide complex, two distinct complexes recognized by a single T cell receptor, 1017
Malaria
  nitric oxide in, 557
  sporozite invasion inhibited by remnant lipoproteins, cleared from circulation by hepatocyte heparan sulfate proteoglycans, 945
Malaria circumsporozite protein, dual interaction with low density lipoprotein receptor–related protein and heparan sulfate proteoglycans during invasion, invasion mediated by dual heparan sulfate proteoglycan and low density lipoprotein receptor system, 1699
Manganese superoxide dismutase, autoreactivity to, 265
Mannose receptor, ability to interact through its cysteine-rich domain with certain ligands, interacts with specific spleen and lymph nodes via domain(s) not involved in carbohydrate recognition, can be directed to areas where affinity maturation of B cell responses occur, 1927
Mannose receptor–positive cells, binding of mannose receptor cysteine-rich domain to ligands could mediate the trapping of, could be directed toward areas where humoral immune responses occur, 1927
Margination, of neutrophils during pneumonia, 639
MART-$1_{(27–35)}$, cytotoxic T lymphocyte reactivity to, 647
Mast cells, aggregation of high affinity receptor for immunoglobulin E (FcεRI) on, results in rapid tyrosine phosphorylation and activation of Syk, 71
Mature B cells, heat stable antigen suppresses anti-CD40–induced proliferation of, 1639
Medulla, in negative selection, 531
Melanin, production by *Cryptococcus neoformans*, and virulence, 377
Melanocytes, connection to intraepidermal nerve terminals in human skin and effect on skin pigmentation, proliferation induced by calcitonin gene–related peptide, 1385
Melanoma
  MART-$1_{(27–35)}$ epitope, 647
  TRP-2 as tumor antigen recognized by cytotoxic T lymphocytes in, 2207
Membrane assembly, C5b67, role of sialic acid moieties in, 1225
Membrane immunoglobulin μ, activates precursor B cell transition in combination with surrogate or conventional light chains, 2025
Memory $CD8^+$ T cells (resting), hyperreactive to antigenic challenge in vivo, generation of, kinetics of interleukin 2Rα chain upregulation compared to that of naive $CD8^+$ T cells, activation threshold compared to that of naive $CD8^+$ cells, 2141
Memory phenotype cells, aging-associated increase depends on antigenic stimulation, 1891
Memory T cell receptor β clonotypes, development in response to natural Epstein-Barr virus infection, 1815
Messenger RNA, as source of antigen, 465
Messenger RNA transcripts for inducible nitric oxide synthase, colocalized with messenger RNA of the epidermal interleukin 8 receptor, 2007
Metastasis, tumor, inhibited by interleukin 10, 579
Methacholine, role of leukotrienes in mediating hyperreactivity to, 1484
3-Methylcholanthrene, tumors induced by, 441
Mice
  B6, 5E6 antibody detects two Ly-49C–related molecules in, 2085
  $\beta2m^{-/-}$, defective iron homeostasis compared to that of hereditary hemachromatosis patients, iron metabolism defective in gut and liver of, 1975
  New Zealand black and white, autoimmune-prone, genetic defects in B-lineage cells of, 853
Microglia, regulate CD4 T cell responses, support an incomplete form of T cell activation and induce apoptotic death of the responding cells, 1737
β2-microglobulin–dependent T cells, dispensable for allergen-induced T helper cell 2 pulmonary responses, 1507
β2-microglobulin–null mice, T helper cell 2 development compared to that in wild-type mice, T helper cell 2 immune response in, incapable of suppressing differentiation of natural killer 1.1^+ T cell $receptor^+$ cells, 1295
Migration, thymocyte, integrin-mediated regulation of, 215
mIL-$8Rh^{-/-}$ mice, vs. mIL-$8Rh^{+/+}$ mice, 1825
Mimicry, epitope, modulates cytotoxic T lymphocyte response to MART-$1_{(27–35)}$, 647
Mimics, functional, of tumor epitopes, recognized by major histocompatibility complex class I–restricted cytolytic T lymphocytes, 121
Mitogen-activated protein kinase, activation necessary for c-*fos* and tumor necrosis factor α mRNA, role in cytokine production, involvement in signal transduction pathways elicited upon FcγR cross-linking, as intermediate molecules in FcγR-induced activation of genes relevant to leukocyte function, phosphorylation of, 1027
Mitogen-activated protein kinase cascade, activation of, necessary for positive selection, 9
mMCP-6
  and mMCP-7, mouse mast cell protease granule tryptases, differential tissue retention of, their fates in mice undergoing passive systemic anaphylaxis, 1061
  prominent Lys/Arg–rich domain on surface of, 1061
mMCP-7
  dissipation from granule cores, inability to be inactivated by circulating protease inhibitors, absence of Lys/Arg–rich domain on surface of, 1061
  and mMCP-6, mouse mast cell protease granule tryptases, differential tissue retention of, their fates in mice undergoing passive systemic anaphylaxis, 1061
Monoclonal antibody 12A8, recoginzes the Ly-49D subset of natural killer cells, augments lysis of $FcγR^+$ target cells, induces apoptosis of Ly-$49D^+$ natural killer cells, 2119
Monocyte chemotactic proteins, T lymphocyte migration toward, 569
Monocytes, reconstituted high density lipoprotein reduces CD14 expression on, 1601
Mononuclear cells, hepatic, contain c-kit^+ cells that can reconstitute myeloid and erythroid lineage cells, 687
Mouse lymphoma EL4H-$2D^b$- and K^b-restricted cytolytic T lymphocyte specific for, 121
Mouse monocyte chemotactic protein-5, role in lung allergic inflammation, compared to other CC-chemokines, differential mRNA regulation during lung allergic inflammation, 1939
mSFO2, used to reduce differentiation factors present in ordinal long-term bone marrow culture, 2301
Multiple sclerosis
  Fas signaling in oligodendrocyte injury/death and myelination in, 2361
  lesions, Fas ligand widely present on glial cells in plaques, Fas receptor upregulation in, Fas ligand attacks Fas ligand receptor–carrying cells in, involvement of CD95 (Apo/Fas) receptor/ligand system in pathogenesis of, 1513
Murine acquired immunodeficiency syndrome
  elevated serum levels of immunoglobulin E in IL-$4^{-/-}$ mice infected with, immunoglobulin class switching during, 1651
  induced in allophenic mice generated from strains susceptible and resistant to disease, the presence of certain amounts of resistant strain origin lymphocytes correlates with the reduction or elimination of retrovirus, suggested thresholds for percentage of resistant genotypes cells required to prevent the progression of, 2101
Murine colony-forming units, preferential proliferation in culture with a macrophage colony-stimulating factor–negative stromal cell clone, 2301
Murine interleukin 8 receptor homologue, in negative regulation of myelopoiesis, 1825
Murine natural killer cells, activated by Ly-49D receptor, monoclonal antibody that recognizes the Ly-49D subset of, 2119
Murine thymocytes, junctional diversity displayed by signal joints in, 1919
Myasthenia gravis, autoimmune, experimental, $CD4^+$ and $CD8^+$ T cells induce, 349
Mycobacteria, heparin-binding hemagglutinin in, binding to epithelial cells inhibited by sulfated carbohydrates, 993
Mycobacterial adhesions, identification of, 993
Mycobacterium tuberculosis
  acquisition of exogenously administered transferrin, arrests maturation of its phagosome, its phagosome interacts with early endosomes, 1349

phagocytosis of, coupled to activation of phospholipase D, 585
Myelin basic protein
in experimental allergic encephalomyelitis, 771
regulatory circuit that establishes self-tolerance to, 1609
Myelopoiesis, murine interleukin 8 receptor homologue in negative regulation of, 1825
NADPH oxidase, involvement of $p40^{phox}$ and $p67^{phox}$ in its activation, 893
NADPH oxidase enzyme, dysfunction in, 1243
Naive $CD8^+$ T cells, activation threshold compared to that of memory $CD8^+$ T cells, kinetics of interleukin 2Rα chain upregulation compared to that of memory $CD8^+$ T cells, 2141
Naive lymphocytes, stimulated binding to intracellular adhesion molecule-1 through the β2 integrin pathway, 1344
Naked plasmid DNA vaccination, priming mechanism in, resulting cytotoxic T lymphocyte response involves the major histocompatibility complex from the bone marrow–derived antigen-presenting cells, role of somatic tissues that express protein from injected plasmids, 1555
Nasopharyngeal carcinoma, association of B*4601 allotype with, 735
Natural killer cells
1.1^+ T cell receptor$^+$ cells, role in T helper cell 2 differentiation in vivo, 1295
1.1^+ α/β^+ T cells, dispensable for allergen-induced T helper cell 2 pulmonary responses, 1507
B6, two cDNA clones isolated from, 2085
Natural killer cells, delayed development in FcεRIγ transgenic mice, 1725
development of, and interleukin 7 receptor α (IL7Rα), 289
express inhibitory receptors specific for HLA-A allotypes, 505
expression of NKB1 on, 295
function regulated by Ly49A receptors, 2037
inhibitory signals target the adaptor protein pp36, 2243
interleukin 15 important cytokine in development of, 325
killer cell inhibitory receptor expression on, 789
recognition of human histocompatibility leukocyte antigen C controlled by residue 80, lysis inhibited by residue 80, 913
role of interferon regulatory factor-1 in function of, shows defective cytolytic activity in the absence of interferon regulatory factor-1, 2043
Natural T αβ cells, develop independently of transporters associated with antigen presentation-1 function, development influenced by H-2TL as well as CD1d, development controlled by TL molecules, 1579
Necrosis, interferon-γ–mediated, in small intestine, 597
Negative signaling, tyrosines in killer cell inhibitory receptor (KIR) motif of NKB1 required for, 295
Neisseria meningitidis, lipopolysaccharide, circulating levels of, closely associated with levels of inflammatory mediators that cooperatively induce septic shock and multiple organ failure, 51
Nervous system, exerts tonic effect on melanocytes in human skin, 1385
Neutrophils
activation by anti–proteinase 3 antibodies in Wegener's granulomatosis, 1567
emigration inhibited by anti–platelet-endothelial cell adhesion molecule-1 antibody, 229
emigration, role of selectins in, 639
susceptible to apoptosis after stimulation with activating anti-Fas immunoglobulin (Ig)M, 429
N-glycanase, treatment with enables rhesus erythrocytes to bind *Plasmodium vivax* region II, 1531
Nitric oxide
in malaria, 557
increased productivity in blood morphonuclear cells from rheumatoid arthritis patients, systemic activation in rheumatoid arthritis, 1173
spontaneous production in synovial membrane of rheumatoid and osteoarthritis patients, 1519
Nitric oxide synthase, sarcolemmal, selective loss in Becker muscular dystrophy, 609
Nitric oxide synthase 2
expressed in tangle-bearing neurons of Alzheimer's disease patients, undetectable in brains of neurologically normal subjects, expressed in rare neurons of neurologically normal subjects of advanced age, induced by Aβ in conjunction with other inflammatory stimuli, deficiency of transforming growth factor β1 permissive for sustained expression of, 1425
increased expression in blood morphonuclear cells from rheumatoid arthritis patients, 1173
$NK1.1^+$ T lymphocytes, crucial for induction of $CD8^+$ T cell responses, 131
NKR-P1A, its expression in the absence of other natural killer cell markers defines a functionally immature stage of natural killer cell differentiation, 1845
NKR-$P1A^+$/$CD56^-$/$CD16^-$ (immature subset of natural killer cells), differentiation into mature natural killer cells, 1845
Nonobese diabetic mice
abrogation of insulitis and autoimmune disease by pancreatic interleukin 4 expression, 1093
aerosol insulin induces regulatory CD8 γδ T cells in, 2167
maternal immunization with soluble BDC 2.5 T cell receptor, specificity of antibody response to BDC 2.5 T cell receptor–immunoglobulin G1 protein, ability of antibody to protect young mice from adoptive transfer of diabetes, 1755
pathogenic role of B lymphocytes in insulin-dependent diabetes mellitus initiation in, 2049
tumor necrosis factor α prevents the development of diabetes in the pancreatic islets of nonobese diabetic mice, 1597
Non–small cell lung cancer, inhibition by interferon γ–inducible protein 10, 981
Novel $Ly\text{-}49C^B$, vs. previously reported $Ly\text{-}49C^B$, as probable B6 allelic form of Ly-49C, 2085
Nuclear factor of activated T cells–dependent transactivation, multiple levels of regulation, 141
Occupancy, T cell receptor, induces anergy in absence of costimulation, 1
Oligodendrocyte, susceptibility to Fas-mediated injury in vitro, 2361
Oligonucleotides, antisense, transfection of bone marrow–derived macrophages with, cause decrease in proliferation compared with controls, 61
Oncostatin M, induces prolonged increase in P-selectin mRNA and protein in human endothelial cells, 81
Ontogeny, p55 receptor for tumor necrosis factor selectively mediates organogenesis of Peyer's patches in, 259
Ovalbumin, expression in tumor cells, 465
p27, permanently down regulated by B cells stimulated with anti-CD40, 407
$p40^{phox}$, association with $p67^{phox}$ and subsequent O_2^- generation, association with $p67^{phox}$ and subsequent activation of NADPH oxidase, 893
p55 receptor, for tumor necrosis factor, selectively mediates organogenesis of Peyer's patches throughout ontogeny, 259
p55 tumor necrosis factor receptor, "death domain," function mediated by phosphatidylcholine-specific phospholipase C, 725
$p56^{lck}$, in propagation of T cell receptor–derived signals, activation required for thymocyte positive selection, deficiency affects T cell repertoire, 931
p67-*phox*, disturbed interaction with p21-*rac* leads to chronic granulomatosus disease, 1243
$p67^{phox}$, association with $p40^{phox}$ and subsequent O_2^- generation, association with $p40^{phox}$ and subsequent NADPH oxidase activation, 893
p70 killer cell inhibitory receptor-11, discriminates among peptides bound to HLA-B*2705 molecules on cells deficient in transporter associated with antigen presentation-1, recognizes HLA-B*2705 molecules loaded with two different peptides, 1585
p75 receptor agonist, and inflammation, 165
p75TNF, increases [^{3}H] thymidine uptake by baboon thymocytes in dose-dependent manner when costimulated with Con A, 165
$p95^{vav}$, overexpression enhances T cell receptor–mediated gene activation, 1161
Partial signaling, pattern induced by antagonists, is distinct from low level signaling induced by agonist, 149
Pathogens, enteric, 493
Peanut agglutinin–binding glycoproteins, expression on immature thymocytes, 759
Peptide transporter, endoplasmic reticulum, TAP, complex with calnexin, 337
Peptide–major histocompatibility complex conformational variation, 253
on antigen-presenting cells with specific T cell receptors on T cells, 777
Perforin
absence of enhances cytokine synthesis of $CD8^+$ T cells, 1543
interleukin 15 induces expression in pregnant uterine tissues, 2405
Perforin-deficient mice, decreased tumor surveillance in, 1781
Perforin-mediated cytotoxicity, crucial to cytotoxic T lymphocyte– and natural killer cell–dependent resistance to injected tumor cell lines, operates during viral and chemical carcinogenesis, 1781
Peripheral blood mononuclear cells, Kaposi sarcoma–associated herpesvirus replication in, 283
Peripheral α/β^+ $CD8^+$ T cells, dispensable for allergen-induced T helper cell 2 pulmonary responses, 1507
Peripheral lymphoid organs, development requires surface lymphotoxin α/β complex, 1999

Peripheral lymphoid tissue, structured into complex T and B cell zones, 1207
Peripheral nerve injury (axonal degeneration/regeneration), role of macrophages and tissue inhibitor of matrix metalloproteinases in the repair of, 2311
Permeability transition, as central event of apoptotic cascade, occurs secondary to the activation of certain cysteine and serine proteases, how inhibition affects apoptotic cascade, 1155
Peroral infection, with *Toxoplasma gondii*, 597
Peyer's patches, development of, controlled by tumor necrosis factor receptor p55, 259
Phagocytes, human, Fas and Fas ligand on, 429
Phagocytosis
  complement- and Fc receptor–mediated, 627
  of *Mycobacterium tuberculosis*, and phospholipase D, 585
Phenylarsine oxide–induced phosphorylation, and photyrosine phosphatase 1C recruitment by human killer inhibitory receptor, 93
Phosphatidylcholine-specific phospholipase C, mediates pathogenic action of tumor necrosis factor, 725
Phosphatidylinositol hydrolysis, B cell receptor induced, abolished in Bruton's tyrosine kinase (Btk)-deficient DT40 B cells, 31
Phospholipase C-γ2, tyrosine phosphorylation induction of, significantly reduced in Bruton's tyrosine kinase (Btk)-deficient cells, 31
Phospholipase D, activation of, coupled to phagocytosis of *Mycobacterium tuberculosis*, 585
Phosphorylation, tyrosine, of human killer inhibitor receptor, recruits protein tyrosine phosphatase 1C, 93
Photyrosine phosphatase 1C, recruited by human killer inhibitory receptor specific for human leukocyte antigen–C after phenylarsine oxide–induced phosphorylation, 93
Plasmodium falciparum, nitric oxide protects against, 557
Plasmodium vivax and *Plasmodium knowlesi*, binding sites on Duffy antigen, 1531
Platelet endothelial cell adhesion molecule, regulation by interferon γ on vascular endothelium in vivo, regulates polymorphonuclear leukocyte extravasation in chronically inflamed herpes simplex virus-1–infected cornea, 1436
Platelet-activating factor, exerts mitogenic activity in human lung fibroblasts, 191
Platelet-endothelial cell adhesion molecule-1, role in triggering passage of leukocytes through perivascular basement membrane, 229
Pleckstrin homology domain, of Bruton's tyrosine kinase, required for phospholipase-γ2 activation, 31
Pneumonia, selectin dependence of tethering in, 639
Polymorphonuclear leukocyte adhesion, modulation by human leukocyte elastase, 1213
Polymorphonuclear leukocytes
  interactions with intestinal epithelia modulated by hypoxia, 1003
  infiltration regulated by interferon γ, extravasation in chronically inflamed herpes simplex virus-1–infected cornea regulated by platelet endothelial cell adhesion molecule, 1436
Polymorphonuclear lymphocytes, cytokine priming as trigger for mobilization of granules to cell surface, 2231
Polysaccharide, type 3, biosynthesis in *Escherichia coli*, 449
pp105/Cas-L, novel Cas-related protein expressed in lymphocytes, structure and function of, novel p130Cas-related protein, role in β1 integrin–mediated signaling pathways, binds to signaling molecules, recruitment of Crk, Nck, and SHPTP2 to, 1365
pp1225FAK, role in β1 integrin–mediated signaling pathways, 1365
p21-*rac*, disturbed interaction with p67-*phox* causes chronic granulomatosus disease, 1243
Precursor B cell transition, role of light chains and membrane immunoglobulin μ in activation of, two pathways for the induction of, 2025
Precursor protein Aβ, in conjunction with other inflammatory stimuli induces enzymatically active nitric oxide synthase 2 in brains of Alzheimer's disease patients, 1425
Pre–T cell receptor, cooperation of CD27 with, 675
Pre–T cell receptorα, and developmental regulation of thymocytes, 519
Proliferation, macrophage- and granulocyte/macrophage colony-stimulating factor dependent, stimulated by transfection of PU.1 expression construct into bone marrow macrophages, 61
Prostaglandin E_2, inflammatory properties of, role in tissue edema, hyperglasia, and interleukin 6 production, role in acute and chronic inflammation, selective neutralization of, 883
Protease inhibitors, inability to inactivate mMCP-7, 1061
Proteases, intracellular, mediate apoptosis, 765
Proteasome activities, inhibition of, slows transport of mouse class I molecules to Golgi apparatus, 337
Proteasome complex, specific subunits as disease-specific autoantigen, 1313
Proteasomes, role in the stage-specific transformation of a protozoan, 1909
Protein kinase C δ, cleaved by CPP32 in vitro, proteolytic activation by a CPP32-like kinase induces characteristics of apoptosis, 2399
Protein kinase C δ catalytic fragment, overexpression associated with morphologic changes characteristic of apoptosis, 2399
Protein tyrosine kinases, activation by engagement of B cell antigen receptor by antigen or anti-immunoglobulin(Ig)M antibody, 457
Protein tyrosine phosphatase 1C
  deficiency, related lymphoid cell abnormalities, 839
  mediates killer cell inhibitory receptor (KIR) inhibitory signal, 295
  regulator of T cell response to antigen receptor stimulation, 839
Protein tyrosine phosphatase SHP1, role in c-Kit signaling, as contributor to inactivation of kit ligand signals, genetic interaction with c-Kit, 1111
Proteinase function, modulation by antiproteasome antibodies, 1313
Proteinases, neutralization by bone marrow accessory cells, 1305
Proteosomal α-type subunit C9, primary target of autoantibodies in sera of patients with systemic lupus erythematosus and myositis, 1313
P-selectin, increased expression of, may facilitate emigration of leukocytes into sites of chronic or allergic inflammation, 81
Psoriasis, expression of inducible nitric oxide synthase in lesions, 2007
PU.1
  expressed at high levels in B cells, mast cells, megakaryocytes, macrophages, neutrophils, and immature erythroid cells, 203
  transcription factor, is necessary for the macrophage colony-stimulating factor–dependent proliferation of macrophages, 61
Pyrimidines, 2′-amino, in RNA, 315
Q66, monoclonal antibody, expressed at natural killer cell surface, as disulphide-linked dimer of 140 kD, 505
R123, lower levels in transgenic-positive $CD4^+$ T cells from aged mice, 1891
RANTES
  role in generation of T cell focal adhesion, role in T cell activation at molecular level, induces tyrosine kinase activity of stably complexed $p125^{FAK}$ and ZAP-70 in human T cells, 873
  T lymphocyte migration toward, 569
Ras, signal transduction pathway, obligatory for maturation of conventional $CD4^+8^-$ and $CD4^-8^+$ thymocytes bearing αβ T cell receptors, 9
ras-related protein, distributed binding to its target protein, 1243
Reactivation, herpes simplex virus site-specific, 659
Rearrangement, gene, restoration of, at multiple T cell receptor loci, 419
Receptors, functional platelet-activating factor, expressed on human lung fibroblasts, 191
Recombination, inter-locus, 735
Reconstituted high density lipoprotein, antiinflammatory effects during human endotoxemia, effects on lipopolysaccharide responsiveness in humans, endotoxin-neutralizing properties of, reduces CD4 expression on monocytes, 1601
Recruitment, leukocyte, platelet-endothelial cell adhesion molecule-1 in, 229
Regulation
  cell cycle, in B lymphocytes, 407
  of expression of genes involved within macrophage proliferation, regulated by PU.1, 61
Regulatory role, of T cell receptorβ, 519
Relapsing-remitting experimental autoimmune encephalomyelitis, CD28/B7-mediated costimulatory interactions in, 783
RelB, role in B cell proliferation, does not affect maturation to immunoglobulin or expression of immunoglobulin isotypes, 1537
RelB$^{-/-}$ mouse B cells, function of, comparison to control B cells, show reduction in DNA synthesis in response to distinct activators, capacity to proliferate, undergo maturation to immunoglobulin secretion, and switch to the expression of downstream immunoglobulin isotypes, 1537
Remnant lipoproteins, inhibit malaria sporozite invasion of hepatocytes, cleared from circulation by hepatocyte heparan sulfate proteoglycans, 945
Residue 80, controls recognition of human histocompatibility leukocyte antigen C by natural killer cells, mediates protection from natural killer cell lysis, 913

Respiratory mucosal dendritic cells, respond to CC chemokines, complementary cleavage products, and *f*MLP in vitro, 2429
Retro-retinoids, in regulated cell growth and death, 549
Rheumatoid arthritis
  inhibition of prostaglandin synthesis by nonsteroidal antiinflammatory drugs, 883
  nitric oxide and nitric oxide synthase 2 in the pathogenesis of, patients show enhanced nitric oxide synthase 2 expression and nitric oxide productivity in blood morphonuclear cells, 1173
  T cell response to Epstein-Barr virus transactivators in, frequent expansion of cells reactive against autologous B lymphoblastoid cells during, 1791
Rheumatoid B factor cells, not tolerated by normal mice, 1269
Rheumatoid factor autoantibody precursors, mechanisms responsible for their regulation in normal mice, 1269
RNA, decoy, nuclease-resistant, against antibodies, 315
RNA pulsation, of dendritic cells, 465
RP105, ligation of, induces B cell proliferation that is affected by cross-linking of surface IgM, 113
Salmonella typhimurium, intestinal response to, 271
Schistosoma mansoni eggs, promote interleukin 4 secretion, interleukin 5 production, and tissue eosinophilia, 1871
scid mice
  γ-irradiated, 419
  severe inflammatory responses in colons of, prevented by treatment with anti-interferon-γ monoclonal antibody, 597
Selectins, in pulmonary margination of neutrophils, 639
Selection, thymic, molecular basis for distinct roles of epithelial and bone marrow–derived cells in, 305
Self major histocompatibility complex class I antigens, induce tolerance in the CD8 compartment via negative selection when expressed exclusively by lymphoid cells, tolerance to major histocompatibility complex class II–restricted self-peptides by processing of these antigens is not induced in the T cell compartment, 1573
Self-antigens
  exposure to, induces differentiation of transgenic intestinal intraepithelial lymphocytes to Th-2–like cells, 493
  tissue-associated, constitutive class I–restricted presentation of, processed via exogenous class I–restricted pathway for presentation to $CD8^+$ T cells, 923
Self-epitopes, recognized by a virus-specific immune response, 2371
Self-human histocompatibility antigen, in shaping of killer cell inhibitory receptor repertoire, 789
Self-peptide, invariant chain and DM proteins edit presentation by major histocompatibility complex class II molecules, 1747
Self-tolerance
  established by regulatory T cell circuit, 1609
  for T cell receptorαβ intestinal intraepithelial lymphocytes, 493
Sequences, Kaposi sarcoma (KS)–associated herpesvirus, present in biopsies and blood of human immunodeficiency virus–positive KS patients, 283
Severe combined immunodeficiency (SCID) mice, tumor immunity after transplantation of universal receptor–modified bone marrow into, 2261
Shock plasma, human septic, interleukin 10 in, deactivates monocytes, 51
SHP-1, constitutive association with SH2 domain–containing leukocyte protein, SLP-76, in B cells, 457
Sialic acid modification, developmental regulation of peanut agglutinin binding of CD8 on immature and mature T cells by, 759
Signal transduction, role of transmembrane four superfamily in, 753
Signaling
  B cell receptor, function of Bruton's tyrosine kinase in, 31
  calcineurin-mediated, occurs in anergic T cells, 19
  by dystrophin complex, may be mediated in part by nitric oxide, 609
  FcεRI-mediated, in mast cells, Syk plays critical role in, 71
  inhibition of, through $p21^{ras}$ or mitogen-activated protein kinase Mek1, causes marked reduction in efficiency of positive selection while not affecting negative selection, 9
Signals, partial, transduced in response to antagonists may actively interfere with signaling by agonist ligands, 149
SIINFEKL, variant peptides, V-OVA, P6, and D7, have no detectable agonist function for MCW $CD8^+$ cytotoxic T lymphocytes, 149
Single-cell polymerase chain reaction analyses, ordering of human bone marrow B lymphocyte precursors by, 2217
Site-specific, reactivation phenotypes of herpes simplex virus, 659
SLP-76
  constitutive association with SHP-1, in B cells, 457
  overexpression enhances T cell receptor–mediated gene activation, 1161
Soluble complement inhibitors, strategy for design of, 1225
Spi-B, an Ets protein, expressed exclusively in B cells and T cells, 203
Splenic cell follicles, role of tumor necrosis factor α in the development of, 1385
Splenocytes, new CD5 ligand expressed on the surface of, 811
Squamous cell carcinoma, elevated levels of interferon γ–inducible protein 10 in, behavior differences vs. adenocarcinoma, 981
Src homology 2, mediates $p95^{vav}$–SLP-76 activation, 1161
Src homology domain, of Bruton's tyrosine kinase, required for phospholipase-γ2 activation, 31
Staphylococcal enterotoxin E, differs from viral superantigen Mtv-9 in T cell receptor binding, interaction between specific residues of and T cell receptor BV6S7 position 72, 1471
STAT6, activation, distinguishes T helper (Th)2 versus Th1 development, 397
Stem cell factor, interaction with c-kit, in intestinal tract response to *Salmonella typhimurium* infection, 271
Stem cells, $c\text{-}kit^+$, 687
Stimulatory receptors, colocalization of killer inhibitor receptors with, may be required to mediate cross-talk inhibition, 93
Streptococcal cysteine proteinase, role in virulence, 665
Streptococcus pneumoniae, induces emigration of neutrophils, 639
Streptococcus pyogenes, virulence mechanism in, 665
Stromal cell–derived factor-1, involvement in trafficking of lymphocytes and monocytes to bone marrow stromal cells, sequence homology compared to other cytokines, 1101
Subunit, γc, functional, lack of in mice affects lymphoid development, 289
Superantigen, Epstein-Barr virus–associated, role in infection, latency, and oncogenesis, 971
Surface IgM, cross-linking of, arrests growth of RP105-activated B cells, 113
Surface lymphotoxin α/β complex, required for the development of peripheral lymphoid organs, 1999
Syk, plays critical role in triggering signaling pathways leading to release of mediators in mast cells, 71
Syk tyrosine kinase, mediates part of immunoglobulin E receptor (FcεRI)–induced Cbl tyrosine phosphorylation, interaction between its Src homology 2 domain/linker regions and non–tyrosine-phosphorylated Cbl, 1713
Synovial cells, produce tumor necrosis α when activated by nitric oxide, 1519
Synthase, type-3 specific, of *Streptococcus pneumoniae*, 449
Systemic lupus erythematosus, B cell defects in the development of, 853
Systemic meningococcal disease, reveals dose-dependent association between plasma levels of lipopolysaccharide and mortality due to circulatory collapse, 51
T, B lympho-hemopoietic progenitors, development in cryptopatches, 1449
T cell activation
  by CD9, 753
  of nuclear factor of activated T cell–dependent transcription in, 101
  by RANTES via molecular complex, 873
  Vβ-restricted after infection, 971
T cell apoptosis, enhanced by autoantibody activation of the Fas pathway in human immunodeficiency virus-1–infected patients, 2287
T cell contact receptor contact residues, replacing with amino acid structures to produce altered peptide ligands, 1259
T cell development
  CD27 in, 675
  transcription factors involved in, 1137
T cell differentiation, in thymus, 759
T cell focal adhesion, generated by RANTES, 873
T cell hybridomas, physiological stimulation with antigen presented by major histocompatibility class II molecules, 1161
T cell line, $CD8^+$, ligands that inhibit but do not induce effector responses of, elicit distinctive subset of biochemical signals, 149
T cell receptor binding, differs for bacterial superantigen staphylococcal enterotoxin E and retroviral superantigen Mtv-9, 1471
T cell receptor β^- cells (fetal), failure to become selected results in proliferation shutdown and eventual cell death, 2327
T cell receptor β chain
  connection with the second phase of thymocyte proliferation, initial selection of fetal thymocytes, 2327

domains that control developmental transition from $CD4^-CD8^-$ to $CD4^+CD8^+$ thymocytes, extracellular constant region and transmembrane region required for assembly with other T cell receptor/CD3 complexes, cytoplasmic tail not essential for signal transduction, 1833
T cell receptor genes
BV, its two alleles have different functional reactivity with natural ligands, interaction between T cell receptor BV6S7 position 72 with specific residues of staphylococcal enterotoxin E, 1471
receptor-β gene rearrangement (vs. T cell receptor-δ rearrangement), different mechanisms during operation, 1919
V_β gene segments, deletion of, 1037
γ, V–J recombination blocked in interleukin 7 receptor–deficient mice, role of interleukin 7 receptor in the rearrangement of, 2423
T cell receptor-β and -δ loci, junctional diversity in signal joints from, 1919
T cell receptor peptide–specific regulatory $CD4^+$ T cells, inactivation induces experimental autoimmune encephalomyelitis, part of regulatory circuit that establishes peripheral tolerance to myelin basic protein, 1609
T cell receptor repertoire, truncations reveal underlying immunogenicity of antigenic determinant, 1037
T cell receptor signaling, in ZAP-70 deficient cells, role of ZAP-70 in, reconstitution through retroviral transduction of the *ZAP-70* gene, 2031
T cell receptor Vα domain, dimerization of, expressed as in inclusion body in *Escherichia coli*, 1251
T cell receptor/CD33 complex, cell surface expression a prerequisite for pre-T cell differentiation, 1833
T cell receptor–ligand binding, strengthened by CD8α/β, more avid in CD8α/β cells than in CD8α/α cells, participation of CD8β in, 2439
T cell receptor–ligand reactions, low affinity, early biochemical signals arising from, 777
T cell receptors
2C, allopeptide dEV-8 is a ligand in its K^{bm3} molecule, single receptor recognizes two distinct major histocompatibility complex/peptide complexes as antigens, 1017
α/β, early expression may permit thymocyte maturation in T cell receptor transgenic mice, 1619
β, gene rearrangements in, 519
γδ, interleukin 15 important cytokine in development of, 325
interact with thymic cognate ligands, resulting in positive or negative selection, 9
ligation by antigen–major histocompatibility complexes, 783
loci, restoration of gene rearrangement at, 419
its relative position within the trimolecular complex, its variability from one complex to another, 1471
rescue of thymocytes from glucocorticoids independent of, 1631
T cell repertoire
affected by $p56^{lck}$ deficiency, 931
intrathymic selection generates cells that regulate the autoimmune potential of peripheral T cells, 2393
T cell response
downregulation in autoimmune disease, 783
to Epstein-Barr virus transactivators in chronic rheumatoid arthritis, 1791
T cell–deficient mice, Fas (CD95) tumor suppressor function in, *lpr* B cell lymphoma in, 1149
T cell–mediated autoimmune insulin-dependent diabetes mellitus, role of B lymphocytes in, 2049
T cell–mediated gene expression, enhanced by overexpression of $p95^{vav}$ or SLP-76, 1161
T cells
$\gamma\,\delta^+$, absent in interleukin 7 receptor α (IL-7Rα)–deficient mice, 289
alloreactive, immunosuppressive activity in, 539
anergic, cytokine production diminished in, 1
apoptotic, as part of same T cell subset that is augmented in human immunodeficiency virus infection, 971
$CD4^+$, absence of and progressive loss of $CD8^+$ T cell control, $CD8^+$, lack of control of γ-herpesvirus in the absence of $CD4^+$ T cells, 863
$CD4^+$, human neonatal, 473
αβ, as critical contact sensitivity–effector cells, 2129
delayed development in FcεRIγ transgenic mice, 1725
expression of human leukocyte antigen (HLA)-A3 specific receptors in, 505
function of killer cell inhibitory receptors on, 789
interleukin 1β–converting enzyme family proteases in the apoptotic death of, inhibitors of 1β–converting enzyme family proteases block the apoptotic death of, apoptosis at different stages of differentiation use members of interleukin 1β–converting enzyme family proteases, 2445
molecular basis of spontaneous adhesion to DC and B blasts, 1769
proliferation costimulated by CD44H via a CD28-independent mechanism, 955
proliferative unresponsiveness in, 1
recognition of herpes simplex virus and ovalbumin peptides complexed to K^b and K^{bm8}, 253
recognition of a nonmutated self peptide, 2207
regulate B cell lymphoma via a Fas-independent mechanism, 1149
respond to *Borriela burgdorferi* in Lyme arthritis, contribute to regulation of the synovial inflammatory infiltrate by a Fas-dependent process, (synovial) γδ T cell (clones), express elevated levels of Fas ligand, induce apoptosis of Fas^{high} $CD4^+$ synovial lymphocytes, 2109
response to antigen receptor stimulator regulated by protein tyrosine phosphatase 1C, 839
role of CD8β in, 2439
role of chemokine and chemokine receptor in trafficking, 799
γδ, role of interleukin 7 receptor in the development of, 2423
role in mediation of inflammatory bowel disease, 241
selective recruitment via novel IP-10/Mig receptor, 963
self-reactive, developmental control of, 387
structural basis for the recognition of altered peptide ligands, 1259
γδ, in $TCR\alpha^{-/-}$mice, cannot fulfill contact sensitivity–effector functions performed by αβ T cells, downregulation by, can mediate downregulation of αβ contact sensitivity effectors and interferon γ production, 2129
T helper cell 2
allergen-induced pulmonary responses not directed by β2-microglobulin–dependent cells, 1507
responses in major β2-microglobulin–deficient mice, 1295
T helper cell precursors, requirements for maturation into T helper 1 or T helper 2 subsets, 803
T helper cells
1 and 2, differentiation of, 473
enhance stimulatory function of dendritic cells, 747
role of CD28 in maturation of, 803
subset, differentiation, cytokine transcriptional events during, 397
T lineage precursors, ability to produce dendritic cells, 903
T lymphocytes
Ca^{2+} signaling pathways in, 101
chemotactic responsiveness in, 569
$TAP\text{-}1^{0/0}$ mice, natural T cells numerically expanded in, 1579
$TCR^{hi}bcl\text{-}2^{hi}$ double-positive thymocytes, as cells already committed to either CD4 or CD8 T cell lineage, selectively terminated CD4 or CD8 synthesis in, 2091
$TCR\alpha^{-/-}$mice, unable to mount contact sensitivity, γδ inhibitory cells in, 2129
Terminal complement proteins, ionic interactions during membrane attack by, strategy for design of soluble and membrane inhibitors of, 1225
$TGF\beta1^{-/-}$ mice, skin devoid of epidermal Langerhans cells, epidermal Langerhans cells and dendritic epidermal cells characterized in, 2417
$Tg.Tla^a\text{-}3\text{-}1$, $Tla^a\text{-}3\text{-}2$ mice and CH3, TL-restricted cytotoxic T lymphocyte responses in, 2175
Thymectomy, neonatal, in mice, causes organ-specific autoimmunity, 387
Thymic dendritic cells, relationship to the T lymphocyte lineage and the phenotype of the dendritic cell progeny, 903
Thymic FcR^- progenitors, vs. FcR^- progenitors in the fetal liver, 1901
Thymic lymphoid precursor cells, proliferation and differentiation into dendritic cells induced by cytokine cocktail, 2185
Thymic T lineage cells, express FcR on their surface at the earliest stage of differentiation, 1901
Thymocyte
differentiation and expansion, CD27 cooperation with pre–T cell receptor in, 675
motility, fibronectin has instructive role in, 215
Thymocyte development, regulation of pre–T cell receptor gene expression in, 519
Thymocytes
CD81 expression in, adhesion and activation influenced by CD81, antibody ligation of CD81 on, 2055
developmental arrest, 419
distinct functions of FcεRIγ and FcεRIζ in the development of, 1725
expression of interleukin-2 receptor (IL-2R)β, α, and IL-15Rα on, 325
fetal, proliferation during development, pre–T cell receptor–dependent proliferation of, connection between second phase of differentiation and expression of T cell receptor β chain, initial T cell receptor β chain selection of, 2327
immature, survival of, 305
mature into T cells without passing through the $CD4^+$ $CD8^+$ double-positive stage, maturation through early expression of α/β T cell receptors on, 1619

negative selection, 485, 531
peanut agglutinin binding of CD8 on, 759
positive selection requires p56^{lck} activity, 931
survival of glucocorticoid-induced apoptosis mediated through CD28/CTLA-4 interactions with B7-1/B7-2, rescue from glucocorticoids independent from T cell receptor, 1631
T cell receptor beta domains that control developmental transition from $CD4^-CD8^-$ to $CD4^+CD8^+$, 1833
Thymus
cognate ligands in, interact with T cell receptor, resulting in positive or negative selection, 9
lineage commitment in the, 2091
migration of intestinal intraepithelial cells through, 1203
self peptide/self major histocompatibility complexes in, 305
Thyroglobulin, as thyroid autoantigen, 1167
Tissue inhibitor of matrix metalloproteinases, role in the repair of peripheral nerve injury (axonal degeneration/regeneration), may protect basement membrane from uncontrolled degradation after injury, 2311
TL antigen (in thymus), positive selection of γδ cytotoxic T lymphocytes by, role of, 2175
Tolerance
mechanisms controlling autoreactive B cells, to membrane self-antigens, sensitivity to B cell receptor–antigen affinity, 1685
peripheral, induction via high doses of antigen, 485
T cell, antigen-specific, role of interleukin 10 in induction and maintenance of, 19
Toxoplasma gondii
peroral infection with, 597
vaccination of knockout mice with attenuated mutant strain of, induces strong T cell immunity mediated by interferon γ, 131
Transactivation, by nuclear factor of activated T cells, mechanisms of, 141
Transactivation domains, distinct interactions with coactivators, may mediate transactivation by nuclear factor of activated T cells–family proteins, 141
Transcription
activated by tissue-specific DNA-binding protein PU.1, 61
key role of nuclear factor of activated T cells–family proteins in, 141
Transcription factors, TCF-1 and GATA-3, involvement in T cell development, production by subpopulation of $CD44^+CD25^-$ cells before production of intracellular CD3ε, 1137
Transferrin, acquisition of by *Mycobacterium tuberculosis* in a time-dependent fashion, 1349
Transforming growth factor β1
deficiency may be permissive for sustained expression of nitric oxide synthase 2 in brains of Alzheimer's disease patients, 1425
endogenous, role in Langerhans cell biology, 2417
Transgene-encoded tumor necrosis factor α, prevents autoimmune diabetes in nonobese diabetic mice, prevents development of autoreactive islet-specific T cells, 1963
Transgenic CD4 cells, increased interleukin 4, immunoglobulin E, and immunoglobulin 1 production upon mitogen stimulation, 1285
Transgenic-positive $CD4^+$ T cells (in aged mice), retain a naive phenotype, express lower levels of R123, become hyporesponsive, 1891
Translation, interleukin-2 (IL-2), lack of, linked to differential ribosome loading of IL-2 mRNA, 159
Transmembrane four superfamily, in regulation of cell development, 753
Transporters associated with antigen presentation-1, natural T αβ cell development not dependent on the function of, 1579
Tricyclodecan-9yl-xanthogenate, inhibits phosphatidylcholine-specific phospholipase C, 725
Trimming, of amino-terminal ends of major histocompatibility complex class II–bound peptides, by aminopeptidase N, 183
TRP-2, new tumor antigen recognized by cytotoxic T lymphocytes, epitope peptide from its coding sequence, 2207
Trypanosoma cruzi, proteasome activity required for stage-specific transformation of, 1909
ts-4, attenuated mutant strain of *Toxoplasma gondii*, induces strong T cell immunity mediated by interferon γ, 131
Tumor necrosis α–deficient mice, absence of primary B cell follicles and follicular dendritic cells in, 1207
Tumor necrosis factor
cytotoxicity, role of "death domain" in, 725
high local concentrations of, induce excessive synthesis of nitric oxide, 557
induces transient increases in E-selectin and vascular cell adhesion molecule-1, 173
p75 receptor, may stimulate T cell proliferation without systemic and local toxicity of tumor necrosis factor, 165
role in immune system development, 1999
Tumor necrosis factor α
histamine inhibits production of, 357
mitogen-activated protein necessary for inducing mRNA expression of, 1027
prevents development of diabetes in the pancreatic islets of nonobese diabetic mice, 1597
produced by nitric oxide–activated synovial cells, 1519
putative role in lymphatic tissue development, 259
role in development and physiology of immune system, role in development of splenic follicles, follicular dendritic cell networks, and germinal centers, role in lipopolysaccharide-mediated cytotoxicity, contact hypersensitivity reactions, and antibacterial host defense, 1385
Tumor necrosis factor–lymphotoxin ligands, functions of, 1999
Tumor necrosis factor–tumor necrosis factor receptor superfamily, role in development of peripheral lymphoid organs and germinal centers, 1207
Tumor surveillance, decreased in perforin-deficient mice, involvement of perforin and Fas, 1781
Tyrosine kinase, Bruton's, activated upon B cell antigen receptor stimulation, 31
Ubiquitous autoantigen (limited molecular mimicry of), may initiate spreading of autoimmune responses, 1857
Universal immune receptors, ζ-based, in vivo function of of non–T cell effector populations with, as mediators of systemic immunity, 2261
Unprimed apoptotic neutrophils, recognized by antineutrophil cytoplasmic autoantibodies, 2231
V_H framework region structures, interaction with CD5 and autostimulatory growth of autoimmune cells, 1279
V_β^α mice, lack of 10 T cell receptor V_β gene segments elicit strong response to HEL 74-96, 1037
Vaccination, with ts-4, an attenuated mutant strain of *Toxoplasma gondii*, provides protection against lethal parasite strain RH, 131
Vascular cell adhesion molecule-1
expression of, mediated by binding of p50/p65 heterodimers to two nuclear factor-κB like binding sites, 173
interleukin 4 induces selective expression of, on endothelium, 81
V-D-J, rearrangements, 519
V(D)J recombination, and γ-irradiation, 419
Very late antigen (VLA)4, engagement in cooperation with VLA5, required for migration, 215
Viral superantigen 7, largely unprocessed in the absence of furin, role of furin in its activation, proteolytic processing essential for its presentation, 1549
Viral superantigens, require proteolytic processing to activate T cells, 1549
Virulence, linked to *CNLAC1* gene product, 377
Vitamin A, prohormone of three classes of metabolites, 549
$V\alpha14$–$J\alpha281^+$ T cell receptor alpha chain, consequences on selection of T cell receptor beta chains of Vβ8 and Vβ7 families, natural killer cell 1 function, and thymocyte differentiation, 1285
Wegener's granulomatosis, neutrophil activation by anti–proteinase 3 antibodies, 1567
WEHI-231 cells, protein–protein interaction in, 457
Weibel-Palade bodies, transient mobilization of P-selectin from, during acute inflammation, 81
ZAP-70
role in T cell receptor signaling, reconstitution of T cell receptor signaling in cells deficient in, 2031
association with focal adhesion kinase B, 873
lack of recruitment of, plays role in induction of anergy, 159
ZAP-70 gene, retroviral transduction of, 2031
Zymosan
complement-opsonized. 627
opsonized, phagocytosis of, associated with activation of phospholipase D, 585